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26/3, K/1 (Item 1 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                 CA: 140(13) 198065a
                                          PATENT
  Vaccine compositions comprising Neisserial adhesin, autotransporter.
  toxin, iron acquisition protein and membrane-associated protein against
  Neisserial infection
  INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Coraj, Karine; Poolman, Jan; Weynants,
Vi ncent
  LCCATION: Bel a.
  ASSIGNEE: Glaxosmithkline Biologicals S.A.
  PATENT: PCT International; WO 200414418 A2 DATE: 20040219
  APPLI CATI CN: WO 2003EP8571 (20030731) *GB 200218037 (20020802) *GB
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      140180125
                                       CA: 140(12)180125k
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      Vaccine composition comprising transferrin binding protein and Hsf
      against Neisseria meningitidiš, Neisseria gonorrhõeae, Moraxella
      catarrhalis and Haemophilus influenzae
      INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Gorai, Carine; Poolman, Jan; Weynants,
Vi ncent
      LOCATION: Belg.
      ASSIGNEE: Glaxosmithkline Biologicals S.A.
ASSIGNEE: Glaxosmithkline Biologicals S.A. PATENT: PCT international; WO 200414419 A1 DATE: 20040219 APPLICATION: WO 2003EP8567 (20030731) *GB 200218037 (20020802) *GB 200218036 (20020802) *GB 200218036 (20020802) *GB 200218036 (20020802) *GB 200218031 (200218051 (20020802) *GB 200225524 (20021101) *GB 200230197 (20020830) *GB 200225524 (20021101) *GB 200230164 (20021224) *GB 200230168 (20021224) *GB 200230170 (20021224) *GB 20035028 (20030305)
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DIALOG(R) File 399; CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
      137184449
                                    CA: 137(13) 184449e PATENT
      Vaccine composition
      INVENTOR(AUTHOR): Berthet, Francois-Xavier Jacques; Lobet, Yves; Poolman,
             Verlant, Vincent Georges Christian Louis
      LOCATION: Belg
      ASSIGNEE: Smithkline Beecham Biologicals S. A.
     PATENT: PCT International; WO 200262380 A2 DATE: 20020815
APPLICATION: WO 2002EP1356 (20020208) *GB 20013169 (20010208)
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Page 2

CODEN: PLXXD2 LANGUAGE: English PAGES: 75 pp. PATENT CLASSI FI CATI ONS: CLASS: A61K-039/116A; A61P-031/04B

AM, AT; AU; AZ; DM, DZ; EC; EE; KG, KP; KR; KZ; NO; NZ; OM, PH; DESIGNATED COUNTRIES: AE; AG, AL; CA; CH; CN; CO; CR; CU; CZ; DE; DK; BA: BB: BG: ES; FI; GB; CD; Œ; GH: GM; HR; HU; ID; IL; IN; IS; JP; LV; MA; MD; MG; MK; MN; MW; MX; KR; KZ; LC; OM; PH; PL; LK; KE: LR: LS; LT: LU: THE PRINCE OF TH

26/3, K/4 (Item 4 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

CA: 137(13)184447c PATENT 137184447 Vaccine composition comprising hyperblebbing Gramineg, bacteria which have down-regulated to genes and mutated peptidoglycan-binding proteins INVENTOR(AUTHOR): Berthet, Francois-Xavier Jacques; Denoel, Philippe; yt, Cecile Anne; Poolman, Jan; Thonnard, Joelle

LCCATION: Belg ASSIQUE: Sm thkline Beecham Biologicals S.A.
PATENT: PCT international; WD 200262378 A22 DATE: 20020815
APPLIOT: OX WD 2002E71351 (20020208) GB 20013171 (20010208)

PAGES: 71 pp. CODEN: F PATENT CLASSI FI CATI ONS: CODEN: PIXXD2 LANGUAGE: English

CLASS: A61K-039/00A DESI GNATED COUNTRIES: AE; AZ; EE; KZ; AG; AL; AMt AT; AU; BA: BB: BG BR: BY: ΒZ CA; CH; CN; CO; CR; CU; GM; HR; HU; ID; IL; IN: ĆΖ; DE; JP; DZ; KP; EC; KR; DK; KE; DM ES: FI: GB: GH: CD: Œ ĭS; ĽĊ; ĽT; KG LU; NO, NZ, SD; LV; MA; MD; MG; MK; MN; MW; MX; MZ; OM, PH; PI RO, RU: SE TR,

26/3. K/5 (Item 5 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

134146387 CA: 134(11)146387p PATENT

Immuno-protective and non-toxic Gramineg, bleb vaccine suitable for pediatric use

INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Dalemans, Wifried L.: Denoel. Philippe; Dequesne, Guy; Feron, Christiane; Lobet, Yves; J.; Denoel, Philippe; Dequesne, Quy; Feron, Christiane; Lobet, Poolman, Jan; Thiry, Georges; Thonnard, Joelle; Voet, Pierre

LOCATION: Belg. ASSIGNEE: Smithkline Beecham Biologicals S.A. PATENT: PCT International; WO 200109350 A2 DATE: 20010208 APPLICATION: WO 2000EP7424 (20000731) \*GB 9918319 (19990803) PAGES: 128 pp. CODEN: PATENT CLASSIFICATIONS: CODEN: PLXXD2 LANGUAGE: English

CLASS: C12N-015/74A; A61K-039/02B; C12N-015/31B; C12N-015/67B; A61K- 039/ 095B; A61K- 039/ 116B; A61K- 039/ 118B; A61K- 039/ 09B; A61K- 039/ 104B; A61K- 039/ 102B; A61K- 039/ 295B; C07K- 014/ 195B; C12N- 001/ 21B

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28/3, K/1 (Item 1 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                    CA: 140(16) 249770m
   140249770
                                                    PATENT
   Refolding of recombinantly produced NspA protein from Neisseria using the
   detergent SB-12 in an alkaline refolding buffer and use of NspA in the treatment, prevention and diagnosis of Neisserial infections
INVENTOR(AUTHOR): Biermans, Raiph; Bos, Martine; Denoel, Philippe; Feron, Christiane; Goraj, Karine; Poolman, Jan; Tommassen, Jan; Weynants, Vincent
   LCCATION: Bel a.
   ASSIGNEE: Glaxosmithkline Biologicals S. A.; Utrecht University
PATENT: PCT International: WO 200420452 A2 DATE: 20040311
   APPLI CATI CN: WO 2003EP10085 (20030828) * GB 200220197 (20020830)
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CODEN: PLXXD2 LANGUAGE: English
       PAGES: 62 pp.
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       DESI GNATED COUNTRI ES:
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DI ALCG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
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       140198065
                                               CA: 140(13)198065a
       Vaccine compositions comprising Neisserial adhesin, autotransporter.
       toxin, iron acquisition protein and membrane-associated protein against
       Neisserial infection
       INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Goraj, Karine; Poolman, Jan; Weynants,
Vi ncent
       LCCATION: Bel a.
      ASSIGNEE: G axosmithkline Biologicals S. A.
PATENT: POT international , WO 200414418 A2 DATE: 20040219
APPLICATION: WO 2003EP8571 (20030731) GB 200218037 (20020802) GB
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       Vaccine composition comprising transferrin binding protein and Hsf
       against Neisseria meningitidis, Neisseria gonorrhoeae. Moraxella
       catarrhalis and Haemophilus influenzae
       INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
 Denoel, Philippe: Feron, Christiane: Corai, Carine: Poolman, Jan: Weynants,
Vi ncent
       LCCATION: Bel a.
       ASSIGNEE: Glaxosmithkline Biologicals S.A.
      PATENT: PCT International; WO 200414419 A1 DATE: 20040219
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PAGES: 64 pp. CÓDEN: F
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DIALOG(R) FILE 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
     140180124
                                      CA: 140(12) 180124j
                                                                                              PATENT
     Engineered meningococcal strains comprising LOS subunit or outer membrane
     vesicle with downregulated or deleted PorA, QpA and/or QpC for use as
     neisserial vaccines
     INVENTOR(AUTHOR): Biemans, Ralph; Denoel, Philippe; Feron, Christiane;
                Karine; Poolman, Jan; Weynants, Vincent
     LOCATION: Belg.
     ASSI GNEE:
                            Gaxosmithkline Biologicals SA
ASSIGNEE: G BXOSMITRKIINE BIOLOGICALS SA
PATENI: PCT International; WD 200414417 A2 DATE: 20040219
APPLICATION: WD 2003EP8568 (20030731) *GB 200218037 (20020802) *GB
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200330170 (20021224) *GB 20035028 (20030305)
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PATENT CLASSIFICATIONS:
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31/3, K/1 (Item 1 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
    147484764
                          CA: 147(23)484764r
                                                                JOURNAL
    Additive and synergistic bactericidal activity of antibodies directed
AUUI I ve and synergistic Dactericidal activity of antibodies directed against minor outer membrane proteins of Neisseria meningitidis a AUTHOR(S): Weynants, Vincent E., Feron, Cristiane M.; Goraj, Karine K.; Bos, Martine P.; Denoel, Philippe A.; Verlant, Vincent G.; Tommassen, Jan, Peak, Ian R. A.; Judd, Raiph C.; Jennings, Mchael P.; Poolman, Jan T. LCCATION: GaxoSmithkine Biologicals, B-1330, Flxensart, Belg. JOHANL: Intect. Immun. (Infection and Immunity) DATE: 2007 VOLUME: 75 NUMBER PALES: 5434-5442 COCCEN: INFIBR ISSN. 0019-9567 LANQUACE
                                                                                                               VOLUME: 75
English PUBLISHER: American Society for Microbiology
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31/3, K/2 (Item 2 from file: 399) DIALOG(R) File 399: CA SEAROH(R) (c) 2010 American Chemical Society. All rts. reserv.

140249770 CA: 140(16) 249770m PATENT Refolding of recombinantly produced NspA protein from Neisseria using the detergent SB-Iz in an alkaline refolding buffer and use of NspA in the treatment, prevention and diagnosis of Neisserial infections iNVENTOR(AUTHOR): Biemans, Raiph; Bos, Martine; Denoel, Philippe; Feron, Christiane; Coraj, Karine; Poolman, Jan; Tommassen, Jan; Weynants, Vincent LCCATION: Belg. ASSIGNEE Gaxosmithkline Biologicals S. A.; Utrecht University PATENT: PCT International; WO 200420452 A2 DATE: 20040311 APPLICATION: WO 2003EP10085 (20030828) GB 200220197 (20020830) PAGES: 62 pp. CODEN: PIXXD2 LANGUAGE: English PACES: 62 pp. CODEN: F PATENT CLASSI FI CATI CNS:

Page 7

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DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society, All rts, reserv.
                                                    CA: 140(13)198065a
                                                                                                                                      PATENT
        Vaccine compositions comprising Neisserial adhesin, autotransporter,
        toxin, iron acquisition protein and membrane-associated protein against
        Neisserial infection
        INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Coraj, Karine; Poolman, Jan; Weynants,
Vi ncent
        LCCATION: Bel a.
        ASSIGNEE: Glaxosmithkline Biologicals S.A.
       PATENT: PCT International; WO 200414418 A2 DATE: 20040219
APPLICATION: WO 2003EP8571 (20030731) *GB 200218037 (20020802) *GB
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31/3, K/4 (Item 4 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                                                   CA: 140(12)180125k
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        140180125
        Vaccine composition comprising transferrin binding protein and Hsf
       against Neisseria meningitidis, Neisseria gonorrhoeae, Moraxella catarrhalis and Haemophilus influenzae
        INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
 Denoel, Philippe; Feron, Christiane; Coraj, Carine; Poolman, Jan; Weynants,
Vi ncent
        LCCATION: Bela.
       ASSIGNEE: Gaxosmithkline Biologicals S.A.
PATENT: PCT international; WD 200414419 A1 DATE: 20040219
APPLICATION: WD 2003EP8567 (20030731) *GB 200218037 (20020802) *GB
200218036 (20020802) *© 200218031 (20020802) *© 200218031 (20020802) *© 200218031 (20021803) *© 200220197 (20020830) *© 200220197 (20020830) *© 200220197 (20020830) *© 200220197 (20020830) *© 200220197 (20020830) *© 200220197 (20020830) *© 200220197 (20020830) *© 200220197 (20020830) *© 200208018 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 200230186 (20021204) *© 2002204) *© 20022040 (20021204
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PACES: 64 pp. CODEN: F PATENT CLASSI FI CATI ONS: CODEN: PLXXD2 LANGUAGE: English

CLASS: A61 K- 039/ 095A: A61K- 039/ 102B: A61K- 039/ 00B DESIGNATED COUNTRIES: AE; CA; CH; CN; CO; CR; CU; CZ; AG; AL; AM; AT; AU; AZ; BA: BG; EC; DE; DM DZ; EE; KZ; ES; DK: FI: CB: CD: Œ GH: GM: HR; HU; ID: IL IN: IS: JP: KE; KG: KP: KR; LC; LR; LS: IT: GW, mn, nu; nu; n; n; ns, ns, Jr; ke; ko; ko; kr; kc; LC; LK; LK; LS; LT; LU; LV; MA; MD; MA; MA; MN; MM; MK; MK; MZ; NN; NO, NZ; CM PQ; PH; PC; PT; PC; PC; SC; SD; SE; SQ; SK; SL; SY; TU; TM, TN; TT; TT; TZ; UA; UQ; US; UZ; VC; VN; VU; ZA; ZM, ZW, AM, AZ; BY; KC; AZ; MD; PD DESIGNATED PREGOVAL: GH; GM; CX; MD; PD DESIGNATED PREGOVAL: GH; GM; CX; MD; PD DESIGNATED PREGOVAL: GH; GM; KZ; MD; RD DESIGNATED PREGOVAL: GH; GM; KZ; MD; RD DESIGNATED PREGOVAL: GH; GM; KZ; MD; RD; SE; SD; SV; SZ; TZ; UQ; ZMM, ZW, AT; BE; BQ; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GB; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF; BU; CF; OQ; CJ; OM; GA; GN; GQ; GM; ML; MF; NE; SN; TD; TG GM KE

31/3, K/5 (Item 5 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

140180124 PATENT

CA: 140(12)180124j Engineered meningococcal strains comprising LOS subunit or outer membrane vesicle with downregulated or deleted PorA, CpA and/or CpC for use as neisserial vaccines

INVENTOR(AUTHOR): Biemans, Ralph; Denoel, Philippe; Feron, Christiane; oraj, Karine; Poolman, Jan; Weynants, Vincent

LOCATION: Belg.

ASSIGNEE: Glaxosmithkline Biologicals SA PATENT: PCT International; WD 200414417 A2 DATE: 20040219 APPLI CATI CN: WO 2003EP8568 (20030731) \*GB 200218037 (20020802) \*GB

MTFLICATION: WD ZUUSEPSB68 (Z0030731) \*GB 200218037 (20020802) \*GB 200218036 (20020802) \*GB 200218036 (20020802) \*GB 200218036 (20020802) \*GB 200218031 (20021803) \*GB 200220197 (20020830) \*GB 200220552 (20021011) \*GB 200230164 (20021224) \*GB 2002205524 (20021101) \*GB 200230164 (20021224) \*GB 200230168 (20021224) \*GB 200230170 (20021224) \*GB 20035028 (20030305) \*GB 200230168 (20021224) \*GB 20030170 (20021224) \*GB 20035028 (20030305) \*GB 20030168 (20021224) \*GB 20030170 (20021224) \*GB 20035028 (20030305) \*GB 20030168 (20021224) \*GB 20030170 (20021224) \*

CLASS: A61K-039/00A

DESIGNATED COUNTRIES: AE; AG; AL; AMt AT; AU; AZ; BA: BB: BG BR: BY: DE, ĒI: CA; CH; CN; CO; CR; CU; CZ; DK; DM DZ; EC; EE; ES; œ: CED; Œ: GΗ; GM; HR; HU; ID; IL; LV; MA; MD; MG; MK; JP; ĽC, ĽŔ, IN; IS; JP; MN; MW, MX; KE; KG KP; KR: KZ; LK; LS; LT: LU; MZ, NI, NO: NZ; CM. PG: PH: PL PT: RO: RU: \$\text{SO}, \text{SO}, VN: ĠΜ ΚĖ DK;

31/3, K/6 (Item 6 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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136166052 CA: 136(11) 166052v PATENT

Vaccine composition Vaccine Composition
INVENTOR(AUTHOC): Berthet, Francois-Xavier Jacques; Dalemans, Wiffried;
Denoel, Philippe; Dequesne, Guy; Feron, Christiane; Garcon, Nathalie;
Lobet, Yves; Pool man, Jan; Thirry, Georges; Thonnard, Joelle; Voet, Pierre
LCOATION: Belg;
ASSIGNEE: Smithkline Beecham Biologicals S.A.
ASSIGNEE: Smithkline Beecham Biologicals S.A.
APPLICATION: WO 2001E78857 (20010731) \*EP 2000956369 (20000731) \*GB

20013170 (20010208) PAGES: 125 pp. C CODEN: PLXXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:

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31/3, K/7 (Item 7 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society, All rts, reserv.
                     CA: 134(11) 146387p
                                                     PATENT
   Immuno-protective and non-toxic Gramineg. bleb vaccine suitable for
   pediatric use
  INVENTOP(AUTHOR): Berthet, Francois-xavier Jacques; Dalemans, Wifried L.; Denoel, Philippe; Dequesne, Quy; Feron, Christiane; Lobet, Yves; oolman, Jan; Thiry, Georges; Thonard, Joelle; Voet, Pierre
Pool man, Jan; Th
LCCATION: Belg
  CODEN: PIXXD2 LANGUAGE: English
   PAŒS: 128 pp.
   PATENT CLASSIFICATIONS:
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A61K-039/095B; A61K-039/116B; A61K-039/118B; A61K-039/09B; A61K-039/104B; A61K-039/102B; A61K-039/295B; C07K-014/195B; C12N-001/21B
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2 RD
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>>>Records from unsupported files will be retained in the RD set.
                  8 RD (unique items)
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DIALOG(R) File 399: CA SEAROH(R)
(c) 2010 American Chemical Society. All rts. reserv.
  148099084
                  CA: 148(5)99084q
                                             PATENT
  Li pool i gosacchar i de meni ngococcal vacci nes
INVENTOR (AUTHOR): Devos, Nathalie; Feron, Christiane; Poolman, Jan; Weynants, Vincent
  LOCATION: Belg.
  ASSIGNEE: Glaxosmithkline Biologicals SA
PATENT: PCT International; WO 2007144316 A2 DATE: 20071221
  APPLI CATI CN: WO 2007EP55676 (20070608) *US 2006PV804475 (20060612) *US
2006PV804489 (20060612)
  PAŒS: 83pp.
                    CODEN: PLXXD2 LANGUAGE: English
  PATENT CLASSI FI CATI ONS:
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              A61K-000/A
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33/3, K/2 (Item 2 from file: 399)
DIALO3(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society, All rts, reserv.
                   CA: 147(23) 484764r
                                                J OURNAL
  Additive and synergistic bactericidal activity of antibodies directed
against minor outer membrane proteins of Neisseria meningitidis and sagainst minor outer membrane proteins of Neisseria meningitidis Araine K; Bos, Martine P.; Denoel, Philippe A.; Verlant, Vincent G.; Tommassen, Jan; Peak, Ian R. A.; Judd, Palph C.; Jennings, Mchael P.; Poolman, Jan T. LCCATION: Glaxosmith Inkline Biologicals, B-1330, Hxensart, Belg.
  JOURNAL: Infect. Immun. (Infection and Immunity) DATE: 2007 VOLUME: 7
NUMBER: 11 PAGES: 5434-5442 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE:
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English PUBLISHER: American Society for Microbiology

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33/3, K/3 (Item 3 from file: 399)
DIALOG(R) File 399: CA SEAROH(R)
(c) 2010 American Chemical Society, All rts, reserv.
      140249770
                                         CA: 140(16) 249770m
                                                                                                         PATENT
      Refolding of recombinantly produced NspA protein from Neisseria using the
detergent SB-12 in an alkaline refolding buffer and use of NspA in the treatment, prevention and diagnosis of Neisserial infections iNVENTOR(AUTHCH). Sie erans, Faiph; Bos, Martine; Denoel, Philippe; Feron, Orristiane; Goraj, Karine; Pool man, Jan; Tommassen, Jan; Weynants, Vincent L
     ASSIGNEE: Gaxosmithkline Biologicals S. A.; Utrecht University
PATENT: PCT international: WD 20042045 2B DEE: 20040311
APPLICATION: WD 2003EP10085 (20030828) 2B 200220197 (20020830)
PACES: 62 pp. COCEN: PIXXVE LANGUAGE: English
PATENT CASSIFICATIONS:
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33/3, K/4 (Item 4 from file: 399)
DIALOG(R) File 399: CA SEAROH(R)
(c) 2010 American Chemical Society, All rts. reserv.
                                           CA: 140(13)198065a
                                                                                                          PATENT
      Vaccine compositions comprising Neisserial adhesin, autotransporter,
      toxin, iron acquisition protein and membrane-associated protein against
      Neisserial infection
      INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Goraj, Karine; Poolman, Jan; Weynants,
Vi ncent
      LCCATION: Belg.
      ASSIGNEE: Glaxosmithkline Biologicals S. A.
      PATENT: PCT International; WO 200414418 A2 DATE: 20040219
APPLICATION: WO 2003EP8571 (20030731) *GB 200218037 (20020802) *GB
METEL MAIL UN WU ZUUSEHSD/1 (ZU030731) *GB 200218037 (20020802) *GB 200218051 (20020802) *GB 200218051 (20020802) *GB 200218051 (20020802) *GB 200218051 (200218051) *GB 200225524 (20021101) *GB 200230197 (20020830) *GB 200225524 (20021101) *GB 200230164 (20021224) *GB 200230168 (20021224) *GB 200230170 (20021224) *GB 20035028 (20030305) *GB 200230170 (20021224) *GB 20035028 (20030305) *GB 200230168 (20021224) *GB 20035028 (20030305) *GB 20030305) *GB 20035028 (20030305) *GB 2003502
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Số SD, SE, Số SK, SL, SV, TÚ, TM, TN, TR, TT; TŽ, TÁ, LG, US; LZ; VĆ VN, YÚ; ZÁ, ZM, ZM, ZM, MA, AZ; BY, KG, KC, MO, RU DESIGNATED REGIONAL CZ; DE; DK, SK, LS; MV, MZ, SD, SL; SZ; TZ; UG, ZM, ZW, AT; BE; BG, OH; CV, CZ; DE; DK, EE; ES; FI; FR, GB; GR, CN, CZ; DE; DK; BK; BE; ES; FI; FR, GB; GR, CN, GC, GN, MZ, MR, NE; SN, TD; TG
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DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

CA: 140(12) 180125k PATENT Vaccine composition comprising transferrin binding protein and Hsf against Neisseria meningitidis, Neisseria gonorrhoeae, Moraxella catarrhalis and Haemophilus influenzae

INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph; Denoel, Philippe; Feron, Christiane; Goraj, Carine; Poolman, Jan; Weynants, Vi ncent

LCCATION: Belg. ASSIGNEE: Glaxosmithkline Biologicals S.A.

PATENT: PCT International; WO 200414419 A1 DATE: 20040219 APPLICATION: WO 2003EP8567 (20030731) \*GB 200218037 (20020802) \*GB 200218036 (20020802) \*@ 200218035 (20020802) \*@ 200218051 (20020802) \*@ 200220197 (20020830) \*@ 200220199 (20020830) \*@ 200220199 (20020830) \*@ 200220592 (20020830) \*@ 200225524 (20021101) \*@ 200225516 (20021024) \*@ 200230168 (20021224) \*@ 200230170 (20021224) \*@ 200230168 (20021224) \*@ 200230170 (20021224) \*@ 200220170 (20021224) \*@ 200220170 (20021224) \*@ 200220170 (20021224) \*@ 200220170 (20021224) \*@ 200220170 (20021224) \*@ 200220170 (20021224) \*@ 200220170 (20021224) \*@ 200220170 (20021224) \*@ 200220170 (20021224) \*@ 200220170 (20021224) \*@ 2002200020 (20021224) \*@ 200220020 (20021224) \*@ 200220020 (20021224) \*@ 200220020 (20021224) \*@ 20020

CODEN: PIXXD2 LANGUAGE: English

PAGES: 64 pp. CODEN: F PATENT CLASSIFICATIONS: CLASS: A61K-039/095A; A61K-039/102B; A61K-039/00B
DESIGNATED COUNTRIES: AE; AG, AL; AM, AT; AU, AZ; BA
CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES
GM, HR; HU; LD; LL; IN; IS; JP; KE; KG, KP; KR; KZ; LC; BA: BB: BG: BY: ΒZ ES: FI: GB: CD: Œ: GH: ĽR; LS: LT: LV; MA; MD; MG; MK; MN; MW; MK; NO; NZ; ΡH, PL MZ; NI; άM PG; PT: RO, RU: UA, ÚG SC; SD; SE; SG; SK; SL; SY: TJ: TM; TN; TR; TT; TZ; US: VN: ΚÉ ÖDE; DK; ≈K: TR; BF;

33/3, K/6 (Item 6 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

140180124 CA: 140(12) 180124j PATENT Engineered meningococcal strains comprising LOS subunit or outer membrane vesicle with downregulated or deleted PorA, CpA and/or CpC for use as neisserial vaccines

INVENTOR(AUTHOR): Biemans, Ralph; Denoel, Philippe; Feron, Christiane; oraj, Karine; Poolman, Jan; Weynants, Vincent LOCATION: Belg.

ASSIGNEE: Glaxosmithkline Biologicals SA

PATENT: PCT International; WO 200414417 A2 DATE: 20040219 APPLI CATI ON: WO 2003EP8568 (20030731) \* GB 200218037 (20020802) \* GB 

PATENT CLASSI FI CATI ONS: CLASS: A61K-039/00A

DESIGNATED COUNTRIES: AE: AG: AL: AMt AT: AU: AZ; BA: BG BR: BZ DE; DK; DM DZ; ES; FI; CA; CH; CN; CO; CR; CU; CZ; EC; EE; Œ; CO; Œ; GH; ΚP; HR; HU; ID; IL; MA; MD; MG; MK; JP; MX; KE; KG, LC, LS; LT; GM; HR; HU; IN; IS, KR; KZ; LK; LR: LU: NZ; MN: MW MZ: NI; NO: **CM** PĞ PH; PL PT: RO. LV: RU: SG; SK; SL; SY; TJ; TM; ZW; AM; AZ; BY; KG; KZ; TN; TR; TZ; UA; SD; SE; ZA; ZM; TT: UG US; VN: MD; RU DESIGNATED REGIONAL: YU: GH: GM KE 

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(c) 2010 American Chemical Society, All rts. reserv.
      136166052
                                         CA: 136(11) 166052v
                                                                                                    PATENT
      Vaccine composition
INVENTOR(AUTHOR): Berthet, Francois-Xavier Jacques; Dalemans, Wifried;
Denoel, Philippe; Dequesne, Quy; Feron, Christiane; Carcon, Nathalie;
Lobet, Yves; Pool man, Jan; Thiry, Georges; Thonnard, Joelle; Voet, Pierre
LOCATION: Belg.
     ASSIGNEE: Smithkline Beecham Blologicals S.A.
PATENT: PCT International; WO 200209746 A2 DATE: 20020207
APPLICATION: WO 20010781) EP 2000956369 (20000731) *G8
20013170 (20010208)
      PAGES: 125 pp.
                                              CODEN: PLXXD2 LANGUAGE: English
      PATENT CLASSIFICATIONS:
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33/3, K/8 (Item 8 from file: 399)
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(c) 2010 American Chemical Society, All rts. reserv.
                                           CA: 134(11)146387p
                                                                                                       PATENT
      Immuno-protective and non-toxic Gram neg. bleb vaccine suitable for
      pediatric use
      INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Dalemans, Wilfried L.
J.; Denoel, Philippe; Dequesne, Quy; Feron, Christiane; Lobet, Yves; Poolman, Jan; Thiry, Georges; Thonnard, Joelle; Voet, Pierre
     LCCATION: Belg.
ASSIGNEE: Smithkline Beecham Biologicals S. A.
     PATENT: POT International: W0 200109355 A2 DATE: 20010208
APPLICATION: W0 2000EP7424 (20000731) "GB 3918319 (19990803)
PAGES: 128 pp. CODEN: PIXXD2 LANGLAGE: English
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CLASS: C12N-015/4741/6B; A61K-039/02B; C12N-015/31B; C12N-015/67B; A61K-039/03B; A61K-039/03B; A61K-039/03B; A61K-039/03B; A61K-039/03B; A61K-039/23B; A61K-
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E3 F4 3 AU=GORAJ, BOZENA 2 \* AU=GORAJ, CARINE

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10523114HSFTBP, t xt
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35/3, K/1 (Item 1 from file: 399)
DI ALOQ (R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
   140180125
                     CA: 140(12) 180125k
                                                     PATENT
   Vaccine composition comprising transferrin binding protein and Hsf
   against Neisseria meningitidis, Neisseria gonorrhoeae, Moraxella
   catarrhalis and Haemophilus influenzae
INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Goraj, Carine; Poolman, Jan; Weynants,
Vi ncent
   LCCATION: Belo.
   ASSIGNEE: Glaxosmithkline Biologicals S. A.
   PATENT: PCT International; WO 200414419 A1 DATE: 20040219
APPLICATION: WO 2003EP8567 (20030731) *GB 200218037 (20020802) *GB
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  PACES: 64 pp. CODEN: F
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                                      A61K-039/102B: A61K-039/00B
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YU; ZA; ZM ZW, AM, AZ; BY; KG; KZ; MD; RU DESIGNATED FEEGIONAL: GH; GW, KE; LS; MW, MZ; SD; SL; SZ; TZ; UG; ZM, ZW, AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GP; HU; IE; IT; LU; MC; NL; FT; RO; SE; SI; SK; TR; BF; BU; CF; CG; CG; CH; GA; GA; GA; GQ; GW, ME; MF; NE; SN; TD; TG
                                                                                                  GM KE
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## ? E AU=POOLMAN, JAN Ref Items Index-term E1 AU=POOLMAN, J. P. J. AU=POOLMAN, J. T. Ē2 116 \* AU=POOLMAN, JAN E3 E4 E5 14 AU=POOLMAN, JAN T 70 AU=POOLMAN, JAN T. Ĕ6 1 AU=POOLMAN, JAN TEUNIS E7 5 AU=POOLMAN, JAN THEUNIS Ē8 AU=POOLMAN, JOHANNES PETRUS JACOBUS F9 161 AU=POOLMAN, JT F10 AU=POOLMAN, K. H. E11 1 AU=POOLMAN, KENNETH 1 AU=POOLMAN, LESLIE JOHN E12 Enter P or PAGE for more ? S E1-E7 AND (HSF OR TRANSFERRIN OR NEISSERIA) AU=POOLMAN, J. P. J. 6 AU=POOLMAN, J. T. 116 AU=POOLMAN, JAN 14 AU-POOLMAN, JAN T 70 AU-POOLMAN, JAN T. 1 AU-POOLMAN, JAN TEUNIS 5 AU-POOLMAN, JAN THEUNIS 11528 HSF TRANSFERRI N 205291 158727 NELSSERI A S36 104 E1- E7 AND (HSF OR TRANSFERRIN OR NEISSERIA) >>>Duplicate detection is not supported for File 393. >>>Duplicate detection is not supported for File 391. >>>Records from unsupported files will be retained in the RD set. S37 88 RD (unique items) ? T S37/3, K/1-88 >>>KWC option is not available in file(s): 399 37/3, K/1 (Item 1 from file: 24) DIALCQ(R) File 24: CSA Life Sciences Abstracts (c) 2010 CSA. All rts. reserv. I P ACCESSI ON NO: 13315803 0004246786 An Outer Membrane Receptor of Neisseria meningitidis Involved in Zinc Acquisition with Vaccine Potential Stork, Michiel; Bos, Martine P; Jongerius, Ilse; de Kok, Natasja; Schilders, Ingrid; Weynants, Vincent E; Poolman, Jan T; Tommassen, Jan Department of Molecular Microbiology, Utrecht University, Utrecht, The Net her Lands PLoS Pathogens, v 6, n 7, p [np], July 1, 2010 PUBLICATION DATE: 2010 PUBLISHER: Public Library of Science, 185 Berry Street San Francisco CA 94107 United States of America DOCUMENT TYPE: Journal Article

RECORD TYPE: Abstract LANGUAGE: English

SUMMARY LANGUAGE: English

I SSN: 1553-7366 ELECTRONI C I SSN: 1553-7374

FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

An Outer Memorane Receptor of Neisseria meningitidis Involved in Zinc Acquisition with Vaccine Potential

Stork, Michiel; Bos, Martine P; Jongerius, Ilse; de Kok, Natasja; Schilders, Ingrid; Weynants, Vincent E; Poolman, Jan T; Tommassen, Jan

## ABSTRACT:

of identifying novel vaccine candidates, we characterized in this study a hitherto unknown receptor in Neisseria meningitidis. We demonstrate that this receptor, designated ZnuD, is produced under zinc limitation and that.

- ...In a search for putative vaccine components, we have characterized here a new receptor of Neisseria meningitidis, a resident of the masopharynx that occasionally causes sepsis and meningitis. We show that...
- ...DESCRIPTORS: membranes; Pathogens; Respiratory tract; Sepsis; Survival; Vaccines; Zinc; meningococal disease; pore-forming proteins; virulence factors; Neisseria meningitidis

37/3, K/2 (Item 2 from file: 24) DIALOG(R)File 24: CSA Life Sciences Abstracts (c) 2010 CSA. All rts. reserv.

0003599239 I P ACCESSI ON NO: 8811906

Immunogenicity, reactogenicity and persistence of meningococcal A, C, W 135 and Y-tetanus toxol candidate conjugate (MenACWY-TT) vaccine formulations in adolescents aged 15-25 years

Cestergaard, Lars; Lebacq, Edouard; Poolman, Jan; Maechler, Gudrun; Boutriau, Dominique Department of Infectious Diseases, Aarhus University Hospital, Denmark, [mailto:Dominique.Boutriau@gskbio.com]

Vaccine, v 27, n 1, p 161-168, January 2009 PUBLI CATI ON DATE: 2009

PUBLISHER: Elsevier Science, The Boulevard Langford Lane Kidlington Oxford OX5 10B UK, [mailto:usinfo-f@elsevier.com], [URL:http://www.elsevier.nl]

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGJAGE: English
SUMMARY LANGJAGE: English
ISSN: 0264-410X
ELECTRONIC ISSN: 1873-2518

FILE SEGVENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

Cestergaard, Lars; Lebacq, Edouard; Pool man, Jan; Maechler, Gudrun; Boutriau, Dominique

DESCRIPTORS: Adolescence; Antibodies; Immunogenicity; Polysaccharides; Toxoids: Vaccines: meningococcal disease: Neisseria meningitidis

37/3, K/3 (Item 3 from file: 24)
DIALOG(R) File 24: CSA Life Sciences Abstracts
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I P ACCESSI ON NO: 7931981 0003160890

Additive and Synergistic Bactericidal Activity of Antibodies Directed against M nor Outer Membrane Proteins of Neisseria meningitidis

Weynants, Vincent E; Feron, Christiane M, Coraj, Karine K; Bos, Martine P; Denoel, Philippe A; Verlant, Vincent G, Tommassen, Jan; Peak, lan RA; Judd, Ralph C; Jennings, Mchael P; Pool man, Jan T G axoSmithKline Biologicals, B-1330 fixensart, Belgium Department of Molecular M crobiology, Utrecht University, 3584-CH Utrecht, The Netherlands. Institute for Glycomics, Giffith University, Southport QLD 4215, Australia. Division of Biological Sciences, University of Montana, Missoula, Montana 59312. School of Molecular & Microbial Sciences, University of Queensland, Brisbane QLD 4072, Australia

Infection and Immunity, v 75, n 11, p 5434-5442, November 2007 PUBLICATION DATE: 2007

PUBLISHER: American Society for Microbiology, 1752 N Street N.W Washington, DC 20036 USA, [URL:http://www.asm.org/]

DCCUMENT TYPE: Journal Article RECORD TYPE: Abstract LANGUAGE: English SUMMARY LANGUAGE: English I SSN: 0019-9567 ELECTRONI C I SSN: 1098-5522

FILE SEGMENT: Immunology Abstracts: Bacteriology Abstracts (Mcrobiology B)

Additive and Synergistic Bactericidal Activity of Antibodies Directed against Minor Outer Membrane Proteins of Neisseria meningitidis

..A; Verlant, Vincent G; Tommassen, Jan; Peak, Ian RA; Judd, Ralph C; Jennings, Michael P; Pooliman, Jan T

### ABSTRACT:

Neisseria meningitidis serogroup B is a major cause of bacterial meningitis in younger populations. The available...

...DESCRIPTORS: Antibodies; Bactericidal activity; Children; Complement; Cross-protection; Membrane vesicles; Meningitis; Mimicry; Vaccines; outer membrane proteins; Meisseria meningitidis

37/3, K/4 (Item 4 from file: 24) DIALO3(R) File 24: CSA Life Sciences Abstracts (c) 2010 CSA. All rts. reserv.

0003148817 I P ACCESSI ON NO: 7930386 Comparison of Phenotypically Indistinguishable but Geographically Distinct Neisseria meningitidis Group B Isolates in a Serum Bactericidal Antibody Assay

Findlow, Jamie; Holland, Ann; Andrews, Nick; Weynants, Vincent; Sotolongo, Franklin; Balmer, Paul; Poolman, Jan; Borrow, Pay Vaccine Evaluation Unit, Health Protection Agency Morth West, Manchester Laboratory, Manchester Medical Microbiology Partnership, P.O. Box 209, 2nd Floor, Clinical Sciences Building II, Manchester Royal Infirmary,

Manchester, Mi3 9WZ. Health Protection Agency, Centre for Infections, Colindale, London, MW6 5EQ. United Kingdom GlaxoSmithKline Biologicals, Fixensart, Belgium Finlay Institute, Ave 27N. 19085, La Lisa A P 160017, Cod 11600, Havana, Cuba

Clinical and Vaccine Immunology, v 14, n 11, p 1451-1457, November 2007 PUBLICATION DATE: 2007

PUBLISHER: American Society for Microbiology, 1752 N Street N.W. Washington, DC 20036 USA, [URL:http://www.asm.org/]DCCUMENT TYPE: Journal Article

RECORD TYPE: Abstract LANGUAGE: English SUMMARY LANGUAGE: English

I SSN: 1556-6811 ELECTRONI C I SSN: 1556-679X

FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

Comparison of Phenotypically Indistinguishable but Geographically Distinct Neisseria meningitidis Group B Isolates in a Serum Bactericidal Antibody Assay

Findlow, Jam'e; Holland, Ann; Andrews, Nick; Weynants, Vincent; Sotolongo, Franklin; Balmer, Paul; Poolman, Jan; Borrow, Ray

# ABSTRACT:

The "gold standard" assay for measuring serologic protection against Neisseria meningitidis group B (MenB) is the serum bactericidal antibody (SBA) assay. Of vital importance to...

DESCRIPTORS: Antibodies; Capsular polysaccharides; Genotypes; Lipooligosaccharides; Membrane vesicles; Cuter membranes; Standardization; Vaccines; Neisseria meningitidis

37/3, K/5 (Item 5 from file: 24)
DIALOG(R) File 24: CSA Life Sciences Abstracts
(c) 2010 CSA. All rts. reserv.

I P ACCESSION NO: 7175484 Shielding of immunogenic domains in Neisseria meningitidis FrpB (Fet A) by the major variable region

Kortekaas, Jeroen; Pettersson, Annika; Van der Biezen, Jenny; Vincent E; Van der Ley, Peter; Pool man, Jan; Bos, Martine P; Wevnants. Tormassen, Jan Department of Molecular Microbiology and Institute of Biomembranes, Utrecht University, Padualaan, 3584 CH Utrecht, The Netherlands, [mailto:mp.bos@bio.uu.nl]

Vacci ne, v 25, n 1, p 72-84, Januar y 2007 PUBLI CATI CN DATE: 2007

PUBLISHER: Elsevier Science Ltd., The Boulevard Langford Lane Kidlington Oxford OX5 108 UK, [mailto:usinfo-f@elsevier.com], [URL: http://www.elsevier.nl]

DCCUMENT TYPE: Journal Article RECORD TYPE: Abstract LANGUAGE: English SUMMARY LANGUAGE: English I SSN: 0264-410X

FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

Shielding of immunogenic domains in Neisseria meningitidis FrpB (FetA) by the major variable region

Kortekaas, Jeroen; Pettersson, Annika; Van der Biezen, Jenny; Weynants, Vincent E; Van der Ley, Peter; Pool man, Jan; Bos, Martine P; Tormassen, Jan

...DESCRIPTORS: sequence: Epitope mapping: Immune response; Immunity; Immunization; Immunofluorescence; Mcroscopy; Vaccines; Variable region; outer membrane proteins; Neisseria meningitidis

37/3, K/6 (Item 6 from file: 24)
DIALOG(F) File 24: CSA Life Sciences Abstracts
(c) 2010 CSA. All rts. reserv.

0002816358 IP ACCESSION NO: 6737828 Vaccine potential of the Neisseria meningitidis lactoferrin-binding proteins LbpA and LbpB

Pettersson, Annika; Kortekaas, Jeroen; Weynants, Vincent E; Voet, Pierre; Pool man, Jaan T; Bos, Martine P; Tommassen, Jan Department of Molecular M crobiol logy, Institute of Biomembranes, Utrecht University, Padualaan 8, 3584 CH Utrecht, The Netherlands, [mailto:mp.bos@biolum.nl]

Vacci ne, v 24, n 17, p 3545-3557, 2006 PUBLI CATI CN DATE: 2006

PUBLISHER: Butterworth-Heinemann, 313 Washington St. Newton MA 02158 USA

DCCUMENT TYPE: Journal Article RECORD TYPE: Abstract LANGUAGE: English SUMMARY LANGUAGE: English ISSN: 0264-410X FILE SEGMENT: Bacteriology Abs

FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts Vaccine potental of the Neisseria meningitidis lactoferrin-binding proteins LopA and LopB

Pettersson, Annika; Kortekaas, Jeroen; Weynants, Vincent E; Voet, Pierre; Poolman, Jan T; Bos, Martine P; Tommassen, Jan

## ABSTRACT:

The vaccine potential of the Neisseria meningitidis

lact of errin-binding proteins LbpA and LbpB was evaluated. Sequencing and sequence alignments suggested that...

...DESCRIPTORS: Outer membranes; Antisera; LbpA protein; Nucleotide sequence; Monoclonal antibodies; Bactericidal activity; Western blotting; LbpB protein; Neisseria meningitidis; Escherichia coli

37/3, K/7 (Item 1 from file: 399) DIALOG(R) File 399: CA SEAROH(R)

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152343487 CA: 152(15)343487u PATENT Cuter membrane vesicle (CMM) vaccine comprising protein NME0964 from Page 20

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Neisseria meningitidis
  INVENTOR(AUTHOR): Bos, Martine Petronella; Poolman, Jan; Stork, Michiel;
Tommassen, Johannes Petrus Maria; Weynants, Vincent
LCCATION: Belg.
  ASSIGNEE: GlaxoSmithKline Biologicals S.A.; Utrecht University
PATENT: PCT International; WD 201025964 A1 DATE: 20100311
  APPLI CATI CN: WO 2009EP52689 (20090306) * CB 200816447 (20080908)
  PAGES: 43pp.
                 CODEN: PLXXD2 LANGUAGE: English
  PATENT CLASSI FI CATI ONS:
     IPCR/8 + Level Value Position Status Version Action Source Office:
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  DESIGNATED COUNTRIES: AE; AG; AL;
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 37/3. K/8
               (Item 2 from file: 399)
DIALOG(R) File 399; CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
  150534080
               CA: 150(25)534080z
                                           JOURNAL
  Genetically modified L3, 7 and L2 lipooligosaccharides from Neisseria
meningitid's serogroup B confer a broad cross-bactericidal response AUTHOR(S): Weynants, V; Denoel, P.; Devos, N; Janssens, D.; Feron, C; Oraj, K; Nbm'n, P.; Monnom D.; Tans, C.; Vandercammen, A.; Weuters, F.;
Pool man, Jan T.
  LOCATION: GlaxoSmithKline Biologicals, B 1330, Rixensart, Belg
  JOURNAL: Infect. Immun. (Infection and Immunity) DATE: 2009 VOLUME: NUMBER: 5 PAGES: 2084-2093 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE:
                                                                          VOLUME: 77
English PUBLISHER: American Society for Microbiology
37/3, K/9 (Item 3 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
  150209307
                CA: 150(11)209307r
                                          PATENT
  Typing of Neisseria by genotyping genes of lipooligosaccharide
  bí osynt hesi s
  INVENTOR(AUTHOR): Devos, Nathalie Isabelle; Di Paolo, Emmanuel Enrico
Al exandre: Feron, Christiane: Pool man, Jan
  LCCATION: Belg.
  ASSIGNEE: Glaxosmithkline Biologicals S. A.
  PACES: 63pp. CODEN: PI
PATENT CLASSI FI CATI ONS:
    IPCF/8 + Level Value Position Status Version Action Source Office: C12Q-0001/68 A I F B 20060101 H EP
  DESIGNATED COUNTRIES: AE;
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Page 21

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  37/3 K/10
                        (Item 4 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                                                           PATENT
   149553936
                       CA: 149(25)553936d
   Carrier protein effects on immune response to combination vaccines
   INVENTOR (AUTHOR): Pool man, Jan
   LCCATION: Bela.
   ASSIGNEE: Glaxosmithkline Biologicals S. A.
   PATENT: PCT International; WO 2008135514 A1 DATE: 20081113
   APPLI CATI ON: WD 2008EP55383 (20080430) *GB 20078522 (20070502) *GB
200712658 (20070628) * CB 20082108 (20080205)
PAGES: 134pp. CODEN: PLXXD2 LANGUAGE: English
   PAGES: 134pp.
   PATENT CLASSI FI CATI ONS:
      IPCR/8 + Level Value Position Status Version Action Source Office:
                                      A I F B 20060101
A I L B 20060101
          A61K-0039/116
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          A61P-0031/04
DESI GRANTED COLUMENT ES: AE; AC; AL; AMA AC; AT; BW; BY; BZ; CA; CH; CN; CO; CA; CU; CZ; DE; DK; FI; CB; GC) GE; GH; GM; GT; HN; HR; HU; ID; IL; KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA;
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DZ; EC;
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KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MZ; MA; NG; NN; NO, NZ; OM PG; PH; PI; PT; RO; RS; RU; SO; SD; SE; SK; SL; SM; SV; SY; TJ; TM; TN; TR; TT DESIGNATED REGIONAL: AT; BE; BG; ; OY; CZ; DE; DK; EE; ES; FI; FR; GB; GB, FR; HU; IE; IS; IT; LT; LU; LV; LV; MC; MT; NL; NO, PL; PT; RO; SE; SI; SK; TR; BF; BU; OF; OG; CI; OM; GA; OQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; LT; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM;
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 37/3, K/11
                        (Item 5 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                       CA: 149(16)353141d
                                                            J OURNAL
   Combination vaccines containing DTPa-Hib: impact of IPV and
   coadministration of CRM197 conjugates
   AUTHOR(S): Dagan, Ron; Poolman, Jan T.; Zepp, Fred
LOCATION: Pediatric Infectious Disease Unit, Soroka University Medical
Center, 84101, Beer Sheva, Israel
   JOURNAL: Expert Rev. Vaccines (Expert Review of Vaccines) DATE: 2008
VOLUME: 7 NUMBER: 1 PAGES: 97-115 CODEN: ERMXAX ISSN: 1476-0584
LANGLIAGE: English PUBLISHER: Future Drugs Ltd.
  37/3, K/12
                        (Item 6 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
   149007218
                       CA: 149(1)7218f
                                                       J OURNAL
   A novel combined Haemophilus influenzae type b-Neisseria meningitidis
   ser ogroups C and Y-tetanus-toxoid conjugate vaccine is immunogenic and
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induces immune memory when co-administered with DTPa-HBV-IPV and conjugate pneumococcal vaccines in infants AUTHOR(S): Nolan, Terry; Lambert, Stephen; Roberton, Don; Marshall, Held Richmond, Peter; Streeton, Catherine; Poolman, Jan; Boutriau, Dominique LCCATION: Murdoch Children's Research Institute and School of Population Health, The University of Melbourne, Australia

JOURNAL: Vaccine (Vaccine) DATÉ: 2007 VOLUME: 25 NUMBER: 51 PAGES: 8487-8499 CODEN: VACCDE ISSN: 0264-410X PUBLISHER ITEM IDENTIFIER: 0264-410X(07)01155-3 LANGUAGE: English PUBLISHER: Elsevier Ltd.

37/3. K/13 (Item 7 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv. 148099084 CA: 148(5)99084q PATENT Lipooligosaccharide meningococcal vaccines INVENTOR(AUTHOR): Devos, Nathalie; Feron, Christiane; Poolman, Jan; Weynants, Vincent LOCATION: Belg. ASSIGNEE: Glaxosm thkline Biologicals SA PATENT: PCT International; WO 2007144316 A2 DATE: 20071221

APPLI CATI CN: WD 2007EP55676 (20070608) \*US 2006PV804475 (20060612) \*US 2006PV804489 (20060612) PAŒS: 83pp. CODEN: PLXXD2 LANGUAŒ: English

PATENT CLASSI FI CATI ONS:

CLASS: A61K-000/A DESI GNATED COUNTRI ES: AE; AG; AL; OR; CU; CZ; AMt AT: AU: BA: BB; BG BR: BW BY; BZ; CA; CH; CN; CO; CR; CU; DE, DZ: DK, DM DO, Fi: EC: EE: JP. ΙN; OB: OD: OE: GH: GM GT: HN: HR: HU: ID: TL: IS: ΚĒ KG ΚΜ KN: ΚP MD, MK; MZ: KR. KZ; LA; LO; LO; DA; PG; PH; PL; FI; DS; GNATED REGIONAL; AI, DC; MA; NG; NI; NO; NZ; ON; PG; PH; PL; FI; TZ; UA DESI GNATED REGIONAL; AI, DC; SM; SV; SV; TJ; TM; TN; TR; TT; TZ; UA DESI GNATED REGIONAL; AI, DC; CV; CZ; DE; DK; EE; ES; FI; FR; GB; GR, HU; IE; IS; IT; LT; LU; LV; NM; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; OF; OQ; CI; CM; GA; GN; GQ; M; NR; NE; SN; TD; TQ; BW; GH; GM; KE; SN; MW; NA; SD; SL; SZ; TZ; MP; NE; SN; TD; TQ; BW; MP; TJ; TM KR; KZ; LA; LC; LK; LR: LS; LT; LU; LY; MA, MG; MN; MW MX; SL

37/3, K/14 (Item 8 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

147116454 CA: 147(6)116454j PATENT Vaccines against Neisseria meningitidis and Streptococcus pneumoniae based on conjugated capsular polysaccharides from multiple meningococcal and/or pneumococcal serogroups

INVENTOR(AUTHOR): Pool man, Jan LCCATION: Belg.

ZW, AM, AZ; BY; KG; KZ; MD; RU;

ASSIGNEE: Glaxosmithkline Biologicals S. A. PATENT: PCT International; WO 200771786 A2 DATE: 20070628

APPLI CATI CN: WO 2006EP70173 (20061222) \*GB 200526412 (20051223) \*GB

20067088 (20060407)
PAGES: 53pp. CODEN: PLXXD2 LANGUAGE: English
PATENT CLASSI FLCATIONS:

IPCR/8 + Level Value Position Status Version Action Source Office: A61K-0039/095

A I F B 20060101 EP 20060101 ĒΡ A61K-0039/09 L В

A61K-0039/116 ĒΡ Α I L B 20060101 DESIGNATED COUNTRIES: AE; AG, AL; AM, AT; AU; AZ; DK; DM, DZ; EC; BB: BG: BA: BR: BW BZ; CA; CH; CN; CO; CR; CU; CZ; DE; ES; FΙ; DK; EE; EG œ; œ; ĬĎ; ĨĿ; ĬN; īs; JP; JP; KE; MG; MK; KG, KM KN: KP; MY; GE; GH; GM; GT; HN; HR; HU; KR: KZ: LV; MD; MW, MX; MZ; LA: LC: LK: LR: LS: LT; LU: LY; PT; MA; MN; NA: NI; NO, NZ; SY; TJ; TM OM, PG; PH; RO, RS; RU; SC; SD; SE; SG; UG DESIGNATED REGIONAL: AT; SK; NG: NI PL; SL SM TM TN: TR: TT, TŽ, UA, BE; BG; SV: TJ;

TM

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37/ 3. K/ 15
                  (Item 9 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                  CA: 146(16)315013u
                                              PATENT
  Serum bactericidal assay for Neisseria meningitidis-specific antibodies
  INVENTOR(AUTHOR): De Vieeschauwer, Isabel: Durant, Nathalie: Poolman, Jan
 Weynants, Vincent
LOCATION: Belg.
  ASSIGNEE: Glaxosmithkline Biologicals S.A.
  ASSISTANCE: G AXXSISTANCE IN THE BIRD OF CARS S.A.
PATENT: PCT International; W0 200728408 A1 DATE: 20070315
APPLICATION: W0 2005EP9566 (20050905)
PACES: 5200. CODEN: PI XXXI2 LANGUAGE: English
PATENT CLASSIFICATIONS:
     IPCR/8 + Level Value Position Status Version Action Source Office:
                             A I F B 20060101
       CO1N-0033/569
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       C12N-0001/22
                              A I
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37/3, K/16 (Item 10 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
  146161138
                  CA: 146(9)161138z
                                            JOURNAL
  Immunogenicity and safety of three doses of a bivalent (B: 4: P1. 19, 15 and
  B: 4: P1. 7-2, 4) meningococcal outer membrane vesicle vaccine in healthy
  adol escent s
AUTHCH Si: Boutriau, Dominique; Pool man, Jan; Borrow, Pay; Findlow, Jam'e Domingo, Javier Diez; Puig-Barbera, Joan; Baldo, Jose Maria; Planelles, Uctoria; Jubert, Angels; Colomer, Julia; Gl, Angel; Levie, Karin; Kervyn, Anne-Diane; Weynants, Vincent; Dominguez, Francisco; Barbera, Famon; Sotolongo, Franklin
  LOCATION: GlaxoSmithKline Biologicals, Rixensart, Belg.
JOURNAL: Clin. Vaccine Immunol. (Clinical and Vaccine Immunology) DATE 2007 VOLUME: 14 NUMBER: 1 PAGES: 65-73 CODEN: CVILA6 ISSN: 1556-6811
  LANGUAGE: English PUBLISHER: American Society for Microbiology
 37/3. K/17
                   (Item 11 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
  146099125
                  CA: 146(6)99125n
                                           PATENT
  Combination vaccine comprising a Haemophilus influenzae type b saccharide
  conjugate and addnl. bacterial saccharide conjugates
  INVENTOR(AUTHOR): Biemans, Ralph Leon; Boutriau, Dominique; Capiau,
Carine; Denoel, Philippe; Duvivier, Pierre; Poolman, Jan
  LOCATION: Beig.
  ASSIGNEE: Glaxosmithkline Biologicals S.A.
PATENT: PCT International; WD 200700322 A1 DATE: 20070104
  APPLI CATI ON: WO 2006EP6210 (20060623) *GB 200513069 (20050627) *GB
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200513071 (20050627) *GB 200515556 (20050728) *GB 200524204 (20051128) *GB 200526040 (20051221) *GB 200526041 (20051221) *GB 200510041 (20051221) *GB 200510041 (20051221) *GB 200510041 (20051221) 
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              A61K-0039/116
                                                                                     20060101
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NO. N.Z. CM PA PH. PL: PT. PO. RS: PU. SC. SD. SS. SQ. SK. SC. SM. SY. TM. TM. TR. T. TZ. UA. US. UZ. VC. DESIGNATED REGIONAL: AT. BE. BQ. CY. CC. DE: DK. EE: ES. FI. FR. GB. GR. HU. IE. IS. IT. LT. LU. LV. M. N.: PI. FT. RO. SE. SI. SK. TR. BF. BU. OF. CQ. CI. OM. GA. GN. GQ. GN. M. M.S. NE. SN. TD. TG. BW. GH. GM. KE. LS. WW. MZ. NA. SD. SL. SZ. TZ. UQ. M. M.S. NE. SN. TD. TG. BW. GH. GM. KE. LS. WW. MZ. NA. SD. SL. SZ. TZ. UQ.
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  37/3. K/18
                                   (Item 12 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
     146099123
                                 CA: 146(6)99123k
                                                                                  PATENT
    Immunogenic composition containing Neisseria meningitidis capsular
     sacchar i des
     INVENTOR(AUTHOR): Biemans, Ralph Leon; Boutriau, Dominique; Capiau,
Carine: Denoel, Philippe; Duvivier, Pierre; Poolman, Jan
LCCATION: Belg.
     ASSIGNEE: Glaxosmithkline Biologicals S. A.
ASSIGNEE: G AXOSIII TIKITIBE BIOLOGICATS 3. A. PATENT: POT International; WO 200700341 A2 DATE: 20070104 APPLI CATION: WO 2006EP6268 (20060623) *GB 200513069 (20050627) *GB 200513071 (20050627) *GB 20051556 (20050728) *GB 200524204 (20051128) *GB 200526044 (20051221) *GB 200526040 (20051221)
    PAŒS: 66pp. CODEN: PI
PATENT CLASSI FI CATI ONS:
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ZW AM AZ: BY: KG: KZ: MD: RU:
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                                   (Item 13 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
     146099122
                                 CA: 146(6)99122j
                                                                                  PATENT
     Neisseria meningitidis capsular polysaccharide vaccine conjugate
    INVENTOR AUTHOR): Biemans, Ralph Leon; Boutriau, Dominique; Capiau,
Carine; Denoel, Philippe; Duvivier, Pierre; Poolman, Jan
     LCCATION: Belg.
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AŚŚIGNĒE: Giaxosmithkline Biologicals S.A. Page 25

PATENT: PCT International; WO 200700314 A2 DATE: 20070104 APPLICATION: WD 2006EP6188 (20060823) \* CB 200513071 (20050627) \* CB 200513069 (20050627) \* CB 200515369 (20050627) \* CB 20051526 (20050728) \* CB 200526940 (20051221) \* CB 200526041 (20051221) CODEN: PIXXD2 LANGUAGE: English PAŒS: 46pp. PATENT CLASSI FI CATI ONS: IPCR/8 + Level Value Position Status Version Action Source Office: A61K-0039/095 A I F B 20060101 H EP ĒΡ AILB A61K-0039/102 20060101 A61K-0039/116 AILB 20060101 EP L B 20060101 ΕP A61P-0031/04 A I DESIGNATED COUNTRIES: AE; AG; AL; AM AT; AU; DM; DZ; BA: BB: BG BR; AZ; R₩ RY ĊΖ, DM; DZ; JP; KE; MG; MK; CA; CH; CN; CO; CR; CU; DE; DK: EC; FF: FG ES: FΪ CB: ന് IL; IN; LY; MA; IS, KM KN: KR; Œ GH: GM HN: HR; HU: ID: KG KP ΚZ LA; LT: LV, LC; LR: MD: MN: MW MX MZ: NI: LK: LS: LU: NG: RU; NO; NZ; OM; PG; PH; PL; TM; TN; TR; TT; TZ; UA; PT; RO; RS; SC; SD; SE; SG; SK; SL; SM; SY; DESIGNATED REGIONAL: AT; BE; BG; UG, US; VC UZ; DK; EE; ES; FI; FR; ØB; GR; HU; IE; IS; IT; LI; LU; O; SE; SI; SK; TR; BF; BJ; OF; CQ; CI; OM; GA; GN; GD; TQ; BW GH; GM; KE; LS; MW MZ; NA; SD; SL; SZ; T ; CY; CZ; DE; DK; EE NL; PL; PT; RO; SE; LV; MC; CQ; GW; I MR; NE; SN; TD; BY: KG: KZ: MD; RU: 37/3, K/20 (Item 14 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv. 146099120 CA: 146(6)99120g PATENT Immunogenic composition containing Neisseria meningitidis capsular polysačcharides INVENTOR(AUTHOR): Biemans, Palph Leon; Boutriau, Dominique; Capiau, Carine; Denoel, Philippe; Duvivier, Pierre; Poolman, Jan LCCATION: Belg. ASSIGNEE: Glaxosmithkline Biologicals S. A. ASSIGNEE: Glaxosmithkline Biologicals S.A.
PATENT: PCT international; VWO 200700342 A2 DATE: 20070104
APPLICATION: WO 2006EF6269 (20060623) \*GB 200513069 (20050627) \*GB
200513071 (20050627) \*GB 200515556 (20050728) \*GB 200524204 (20051128) \*GB
200526040 (20051221) \*GB 220526041 (20051221)
PACES: 64pp. CODEN: PIXXO2 LANGLAGE: English
PATENT CLASSIFICATIONS: IPCF/8 + Level Value Position Status Version Action Source Office: A61K-0039/095 A I F B 20060101 H EP A61K-0039/102 AILB 20060101 FP ĒΡ A61K-0039/116 AILB 20060101 A61P-0031/04 ĒΡ A I L B 20060101 BR; DESIGNATED COUNTRIES: AE; AG; AL; AM AT: AU: AZ: BA: BB: BG: BW CN; CO; CR; ĊŪ; CZ; DE; DM DΖ; EC; EE; EG ĒŠ; ĒΙ; BZ: CA; CH; DK; GB; GD: ΚE, ĨL; īs; ĴΡ; Œ GM: HN: HR: HU: ID: IN; KG KM KN: KP: KR: GH: KZ; LA: ΜZ, LC; LK; LR; LS; LT; LU; NO; NZ; QM; PG; PH; PL; LY; MG, MK; LV; PT; MA; MD; MN; MW MX; NG: NI: RO; RS; RU; SC; SD: SG SK: SL; .: AT; TJ DESI GNATED REGIONAL TZ: UĀ: UG US: UZ: VC СH N, TH; TT; TZ; WA; WA; WS; WZ; WD DESIGNATION THE MEASURE THE COZ; DE: DK; EE; ES; FT; FR; BB; GF; HT; LE; TS; TT; LT; LU; LV; MC; UL; PT; FO; SE; SI; SK; TR; BF; BB; GF; OG; GJ; OM; GA; GN; GQ; GW; ML. NL; PL; PT; RO; SE;

37/3, K/21 (Item 15 from file: 399) DIALOG(R) File 399; CA SEARCH(R)

BY: KG: KZ: MD: BU:

MR; NE; SN; TD; TG; BW; GH;

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146099118 CA: 146(6)99118n PATENT Combination vaccines comprising Haemophilus influenzae type b saccharide Page 26

MW MZ: NA: SD: SL: SZ:

GM; KE; LS;

TJ:

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conjugate, an addnl, bacterial saccharide conjugate, and further antigens
  INVENTOR(AUTHOR): Biemans, Ralph Leon; Boutriau, Dominique; Capiau,
Carine: Denoel, Philippe; Duvivier, Pierre; Poolman, Jan
  LCCATION: Belg.
ASSIGNEE: G axosmithkline Biologicals S.A.
PATENT: POT international: WO 200700327 A1 DATE: 20070104
  APPLI CATI ON: WO 2006EP6220 (20060623) * CB 200513069 (20050627) * CB
200513071 (20050627) * GB 200515556 (20050728) * GB 200524204 (20051128) * GB 200526041 (20051221) * GB 200526040 (20051221)
  PAGES: 49pp. CODEN: PI
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                    CODEN: PLXXD2 LANGUAGE: English
     IPCR/8 + Level Value Position Status Version Action Source Office:
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 37/3. K/22
                   (Item 16 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                   CA: 145(21)417014s
                                              PATENT
Maningococcal class 1 outer-membrane protein vaccine INVENTOR(AUTHOE): Seid, Jr., Pobert C.; Paradiso, Peter R.; Pool man, Jan T.; Hoogerhout, Peter; Wertz, Emmanuel J. H. J.; Van Der Ley, Peter; Heckels, John Edward; Clarke, Ian Nicholas
  LOCATION: USA
ASSIGNEE: Weth Holdings Corporation; De Staat der Nederlanden
Vertegenwoord go Door De M nister Van Welzijn, Volksgezondheid En Cultuur
PATENT: United States; US 7118757 BI DATE: 20051010; *NL 8936
APPLICATION: US 204808 (19940215) *NL 883111 (19881219) *NL 89405
(19890106) *NL 891612 (19890026) *US 691005 (19891219) *VO 89US5678
(19891219)
  PAGES: 88pp., Cont. of U.S. Ser. No. 691,005. CODEN: USXXAM LANGUAGE:
English
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                   (Item 17 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
  143131822
                   CA: 143(8) 131822p
                                             PATENT
  A gram negative bacterium with disruption of lipopolysaccharide (LPS)
  transport to the outer membrane and use thereof as a vaccine
  INVENTOR(AUTHOR): Bos, Martine Petronella; Poolman, Jan; Tefsen, Boris;
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10523114HSFTBP, t xt
Tommassen, Johannes Petrus Maria
  LOCATION: Belg
  ASSIGNEE: Glaxosmithkline Biologicals S.A.; Utrecht University
PATENT: PCT International; WD 200564021 A2 DATE: 20050714
  APPLICATION: WD 2004EP14770 (20041221) * GB 200329827 (20031223) * GB
200416398 (20040722)
  PAŒS: 96 pp.
                    CODEN: PLXXD2 LANGUAGE: English
  PATENT CLASSI FI CATI ONS:
              C12R-001/36A
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37/3, K/24 (Item 18 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                 CA: 142(21)387960r
                                              PATENT
  Protein and nucleotide sequences of Bordetella protein BASB232 and its
  therapeutic use
  INVENTOR(AUTHOR): Castado, Cindy: Denoel, Philippe: Godfroid, Fabrice;
Pool man, Jàn
LCCATION: Belg.
  ASSIGNEE: Glaxosmithkline Biologicals S. A.
PATENT: PCT International; WD 200532584 A2 DATE: 20050414
  APPLI CATI CN: WO 2004EP11082 (20041001) * GB 200323113 (20031002) * GB
200323112 (20031002)
  PAGES: 172 pp. CODEN:
PATENT CLASSIFICATIONS:
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                  (Item 19 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
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  140259048
                  CA: 140(16) 259048w
                                             PATENT
  Neisseria outer membrané FrpB proteins containing Loop-deletions for
  improved refolding and vaccine use
INVENTCH(AUTHOR): Biemans, Palph; Denoel, Philippe; Feron, Christiane; Coraj, Karine; Kortekaas, Jeroen; Poolman, Jan; Tommassen, Jan; Weynants,
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ÜÜCĂΤΙ ΟΝ: Bel g. ASSI ΟΝΕΕ: Glaxosmithkline Biologicals S. A.; Utrecht University; Technology Foundation (Stichting Voor de Technische Wetenschappen) Page 28

Vi ncent

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PATENT: PCT International; WO 200420463 A2 DATE: 20040311 APPLICATION: WO 2003EP9634 (20030828) *GB 200220199 (20020830)
   PACES: 104 pp. CODEN:
PATENT CLASSIFICATIONS:
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       CLASS: C07K-014/00A
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  37/3. K/26
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DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
140249770 CA: 140(16)249770m PATENT
Refolding of recombinantly produced NspA protein from Neisseria using the
detergent SB-12 in an alkaline refolding buffer and use of NspA in the
treatment, prevention and diagnosis of Neisserial infections
INVENTOR(AUTHOR): Biemans, Balph; Bos, Martine; Denoel, Philippe; Feron,
Christiane; Corai, Karine; Poolman, Jan; Tommassen, Jan; Weynants, Vincent
   LCCATION: Belg.
   ASSIGNEE: Glaxosmithkline Biologicals S. A.; Utrecht University PATENT: PCT International; WD 200420452 A2 DATE: 20040311 APPLICATION: WD 20035P10085 (20030828) GB 200220197 (20020830) PAGES: 62 pp. CODEN: PIXXD2 LANGUAGE: English PATENT_CASSIFICATIONS:
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  37/3. K/27
                         (Item 21 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                        CA: 140(13)198071z
                                                              PATENT
   Meningococcal genetically engineered vaccine composition which has a
   fixed or locked lipooligosaccharide (LOS) immunotype
INVENTOR (AUTHOR): Biemans, Ralph; Denoel, Philippe; Feron, Christiane; Coraj, Karine; Jennings, Michael Paul; Poolman, Jan; Weynants, Vincent
   LCCATION: Belg.
   ASSIGNEE: Glaxosmithkline Biologicals Sa; The University of Queensland PATENT: PCT International; WD 200415099 A2 DATE: 20040219
   APPLI CATI CN: WO 2003EP8569 (20030731) * GB 200218037 (20020802) * GB
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PAGES: 42 pp. CODEN: PLXXD2 LANGUAGE: English PATENT CLASSIFICATIONS:

Page 29

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   37/3. K/28
                                         (Item 22 from file: 399)
DIALOG R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society, All rts, reserv.
                                         CA: 140(13)198065a
                                                                                                      PATENT
      Vaccine compositions comprising Neisserial adhesin, autotransporter,
      toxin, iron acquisition protein and membrane-associated protein against
      Neisserial infection
INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Goraj, Karine; Poolman, Jan; Weynants,
Vi ncent
      LCCATION: Bel a.
      ASSIGNEE: Glaxosmithkline Biologicals S.A.
      PATENT: PCT International; WO 200414418 A2 DATE: 20040219
      APPLI CATI CN: WO 2003EP8571 (20030731) * GB 200218037 (20020802) * GB
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37/3, K/29 (Item 23 from file: 399)
DIALO3(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                                       CA: 140(12)180125k
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      140180125
      Vaccine composition comprising transferrin binding protein and Hsf
     against Neisseria meningitidis, Neisseria gonorrhoeae, Moraxella catarrhalis and Haemophilus influenzae
      INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
 Denoel, Philippe; Feron, Christiane; Coraj, Carine; Poolman, Jan; Weynants,
Vi ncent
      LCCATION: Bela.
     ASSIGNEE: Gaxosmithkline Biologicals S.A.
PATENT: PCT international; WD 200414419 A1 DATE: 20040219
APPLICATION: WD 2003EP8567 (20030731) *GB 200218037 (20020802) *GB
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(c) 2010 American Chemical Society. All rts. reserv.
                                                                                PATENT
    140180124
                                CA: 140(12)180124j
    Engineered meningococcal strains comprising LOS subunit or outer membrane vesicle with downregulated or deleted PorA, CpA and/or CpC for use as
    neisserial vaccines
    INVENTOR(AUTHOR): Biemans, Ralph; Denoel, Philippe; Feron, Christiane; oraj, Karine; Poolman, Jan; Weynants, Vincent
    LOCATION: Belg.
    ASSIGNEE: Glaxosmithkline Biologicals SA
PATENT: PCT International; WD 200414417 A2 DATE: 20040219
    APPLI CATI CN: WO 2003EP8568 (20030731) * GB 200218037 (20020802) * GB
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DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
    137293549
                                CA: 137(20) 293549h
                                                                                  PATENT
    Multi-valent vaccine compositions
    INVENTOR(AUTHOR): Boutriau, Dominique, Capiau, Carine, Desmons, Pierre
M chel; Lemoine, Dominique; Pool man, Jan
    LCCATION: Belg.
    ASSIGNEE: Glaxosmithkline Biologicals S.A.
    PATENT: PCT International; WO 200280965 A2 DATE: 20021017
APPLICATION: WO 2002EP3573 (20020328) *GB 20018364 (20010403)
    PACES: 31 pp. CODEN: F
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                       (Item 26 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
   137184449
                      CA: 137(13)184449e
                                                     PATENT
   Vaccine composition
   INVENTOR(AUTHOR): Berthet, Francois-Xavier Jacques; Lobet, Yves; Poolman,
Jan; Verlant, Vincent Georges Christian Louis
LCCATION: Belg.
   LOCATION Design ASSIGNEE: Smithkline Beecham Biologicals S.A.

PATENT: PCT International; WO 200262380 A2 DATE: 20020815

APPLICATION: WO 2002EP1356 (20020208) '68 20013169 (20010208)

PAGES: 75 pp. CODEN: PIXXD2 LANGUAGE: English
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                       (Item 27 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                      CA: 137(13) 184447c
                                                        PATENT
   137184447
   Vaccine composition comprising hyperblebbing Gram-neg. bacteria which
   have down-regulated to genes and mutated peptidoglycan-binding proteins
INVENTOR(AUTHOR): Berthet, Francois-Xavier Jacques; Denoel, Philippe;
Neyt, Cecile Anne; Poolman, Jan; Thonnard, Joelle
   LOCATION: Belg
   LASSICNEE: SPIT INLINE Beecham Biologicals S.A.
PATENT: PCT International; WO 200262378 A2 DATE: 20020815
APPLICATION: WO 2002EP1361 (20020208) GB 20013171 (20010208)
PAGES: 71 pp. CODEN: PIXXD2 LANGUAGE: English
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M; MR; NE; SN; TD; TG
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37/3, K/34 (Item 28 from file: 399)

DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

CA: 136(20)308525c PATENT

Peptides mimic epitopes of meningococcal surface lipooligosaccharides and monoclonal antibodies against them for diagnosis and treatment of

meningitis INVENTOR(AUTHOR): De Bolle, Xavier Thomas; Letesson, Jean-Jacques; Lobet. Yves: Mertens, Pascal Yvon; Poolman, Jan; Voet, Pierre

LCCATION: Belg ASSIGNEE: Smithkline Beecham Biological S. A.

ASSIGNMENT SIMILIKI FITE BEEFINGTH BY 00 200228888 A2 DATE: 20020411
APPLICATION: WO 2001EP11409 (20011003) \*GB 200024200 (20001003)
PACES: 55 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSI FI CATIONS:

CLASS: C07K-007/04A; A61K-039/095B; C01N-033/68B; C12N-015/11B;

C12N-005/20B 

37/3, K/35 (Item 29 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society, All rts. reserv.

CA: 136(18)277516u JOURNAL

Outer membrane protein vesicle vaccines for meningococcal disease AUTHOR(S): Frasch, Carl E.; Van Alphen, Loek; Holšt, Johan; Poolman, Jan

Rosenavist, Einar LOCATION: Division of Bacterial Products, Center for Biologics Evaluation

and Research, Pockville, MD, USA
JOHNAL: Methods Mol. Med. DATE: 2001 VOLUME: 66 NUMBER: Meningg
Vaccines PAGES: 81-107 CODEN: MMMEFN LANGBUAGE: English PUBLISHER: DATE: 2001 VOLUME: 66 NUMBER: Meningococcal Humana Press Inc.

37/3. K/36 (Item 30 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

CA: 136(18)276681g J OURNAL Animal models for meningococcal disease

Humana Press Inc.

AUTHOR(S): Corringe, Andrew R.; Reddin, Karen M.; Voet, Pierre; Poolman,

Jan T. CCATION: Center for Applied Microbiology and Pesearch, Salisbury, UK, JOHNAL: Methods Mol. Ned. DATE: 2001 VCLUME: 66 NUMBER: Meningococcal Vaccines PAGES: 241-254 COOEN: MMAETN LANGUAGE: English PUBLISHER:

37/3. K/37 (Item 31 from file: 399) DIALOG(R) FILE 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

136068701 CA: 136(5)68701m PATENT

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10523114HSFTBP, t xt
   Multi-valent capsular polysaccharide vaccines
INVENTOR (AUTHOR): Boutriau, Dominique; Capiau, Carine; Desmons, Pierre Michel; Lemoine, Dominique; Pool man, Jan
   LOCATION: Belg
   ASSIGNEE: Smithkline Beecham Biologicals S.A.
PATENT: PCT International; WO 200200249 A2 DATE: 20020103
   APPLI CATI CN: WD 2001EP7288 (20010627) *GB 200015999 (20000629) *GB
20018363 (20010403) * GB 20018364 (20010403)
PAGES: 31 pp. CODEN: PLXXD2 LANGUAGE: English
   PATENT CLASSIFICATIONS:
      CLASS:
                 A61K-039/00A
                                                            AT;
DZ;
KP;
NZ;
UZ;
DESIGNATED COUNTRIES: AE; CA; CH; CN; CO; CR; CU; CZ;
                                         AG:
                                                AL;
                                                                   AU;
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LC;
RO;
                                    CZ; DE;
IS; JP;
MW, MX;
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KR;
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                                                KE,
MZ,
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SD,
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SE; SG;
AZ; BY;
SD; SL;
                ID; IL;
MG; MK;
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GM; HR; HU;
                              IN:
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LV: MA: MD:
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                              MN;
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37/3, K/38 (Item 32 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                      CA: 134(23)325189x
                                                        PATENT
   Novel method of determining antibody response to pneumococcal capsular
   polysaccharide conjugate vaccine in humans
INVENTOR(AUTHOR): Laferriere, Craig Antony Joseph; Poolman, Jan; Slaoui,
Moncef Mohamed
   LCCATION: Belg.

ASSIGNEE: Smithkline Beecham Biologicals S. A.
PATENT: PCT International; WD 200130390 AZ DATE: 20010503
   APPLI CATI CN: WO 2000 EP10733 (20001027) * GB 9925559 (19991028)
   PACES: 36 pp. CODEN: PIXXD2 LANGUACE: English PATENT CLASSI FI CATI CNS:
      CLASS: A61K-047/48A
DESIGNATED COUNTRIES: AE; AG; AL; CA; CH; CN; CR; CU; CZ; DE; DK; DM;
                                                            AT; AU;
EE; ES;
                                                       AM
                                                                        AZ; BA;
FI; GB;
                                                                                     BB; BG;
                                                                  ES; FI;
LC; LK;
RO; RU;
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                                                                                                  GH:
                                                                                                         GM.
                                                                                                               HR:
CA; CH; CH; CH; CU; CU; DE; DK; DM; DW; EE; ES; H; 68; GU; GE; GH; GM; H
HU; ID; IL; IN; IS; JP; KE; KG; KP; KP; KZ; LC; LK; LR; LS; LT; LU; LU; M;
MD; MG; MK; MN; MW; MX; MZ; NQ; NZ; PL; PT; PQ; PU; SD; SE; SG; SI; SK; S
TU; TM; TF; TT; TZ; UA; UG; US; UZ; VN; VU; VU; ZA; ZW; AM; AZ; PY; KG; KZ; M;
PU; TJ; TM; DESI GNATED PEG CONAL; GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ;
; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT;
SE; BF; BJ; CF; CQ; CI; CM; GA; GN; GW; M; M; NR; NE; SN; TD; TG
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 37/3, K/39
                       (Item 33 from file: 399)
DI ALCO R) File 399: CA SEARCH (R)
(c) 2010 American Chemical Society. All rts. reserv.
   134146387
                     CA: 134(11)146387p
                                                        PATENT
   Immuno-protective and non-toxic Gramineg. bleb vaccine suitable for
   pediatric use
   INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Dalemans, Wifried L.
: Dennel: Philippe: Dequesne. Guy: Feron. Christiane; Lobet, Yves;
   ; Denoel, Philippe; Dequesne, Guy; Feron, Christiane; Lobet,
                    Thiry, Georges, Thonnard, Joelle, Voet, Pierre
Pool man, Jan:
   LOCATION: Belg
   ASSIGNEE: Smithkline Beecham Biologicals S. A.
   PATENT: PCT International; WO 200109350 A2 DATE: 20010208
APPLICATION: WO 2000EP7424 (20000731) *GB 9918319 (19990803)
   PAGES: 128 pp.
                         CODEN: PLXXD2 LANGUAGE: English
   PATENT CLASSIFICATIONS:
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CLASS: C12N-015/74A: A61K-039/02B; C12N-015/31B; C12N-015/67B;
A61K-039/095B; A61K-039/116B; A61K-039/118B; A61K-039/09B; A61K-039/104B; A61K-039/102B; A61K-039/295B; O07K-014/195B; C12N-001/21B
  BG:
                                                                              BR;
                                                                                         BZ
                                                     ES; FI; GB; GU,
LC; LK; LR; LS;
RO; RU; SD; SE;
CA; CH; CN; CR; CU; CZ;
                                                                     GD;
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HU: I D:
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MD; MG; MK;
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                                                                                         SL:
                                                     ZA; ZW, AM, AZ; BY:
                   TZ; UA;
                                           VN; YU;
                                                                             KG:
TJ: TM: TR:
                            UG: US:
                                      UZ;
                                                                                        MD:
RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW, MZ; SD; SL;
                                                                               SZ:
                                                                                    TZ:
                                                                                         UG
; ZW, AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CQ, CI; CM; GA; GN; GW, ML; MR; NE; SN; TD; TG
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37/3, K/40 (Item 34 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

133265650 CA: 133(19) 265650h PATENT

Vacci ne INVENTOR(AUTHOR): Capiau, Carine; Deschamps, Marguerite; Desmons, Pierre Laferriere, Craig Antony Joseph; Poolman, Jan; Prieels, Jean-paul

LCCATICN: Beig. ASSIGNEE: Smithkline Beecham Biologicals S. A.

ASSIGNEE: SINTINKTHE BECHANDED (19) CATS 3. DATE: 20000928
APPLICATION: WO 2000EP2465 (20000317) \*GB 996437 (19990319) \*GB 999077
(19990420) \*GB 999466 (19990423) \*GB 9916677 (19990715)
PACES: 78 pp. \_CODEN: PI XXOZ LANGUAGE: English

PATENT CLASSIFICATIONS:

CLASS: A61K-039/09A: A61K-039/39B; A61K-039/385B; A61P-031/04B DESIGNATED COUNTRIES: AE; AG; AL; AM AT; AU; AZ; BA; BB; BG; BR; BY: OH; ON; OR; OU; OZ; DE; DK; ID; IL; IN; IS; JP; KE; KG; MG; MK; MN; MW MK; NO; NZ; ES; LC; RU; FI; LK; SD; DK; DM; DZ; KG; KP; KR; NZ; PL; PT; UZ; VN; YU; EE: CB, GD: Œ; GH, GM. HR: HU: LC; LK; LR; RU; SD; SE; ZW; AM; AZ; LS; KZ: LT: LV: LU: MA: MD: SG; Ši; SK; ŤΜ RO; SL; TJ; KZ; TZ: UA: UG: US: ZA: BY; KG; SZ; TZ; MD: RU: TJ THÍ ĐẾSI GẦA TẾU RẾU ĐỚAL: "GH, "GM, "KE, "LS, "WY "SÞ, "SL, "SZ, "TZ, "ÚS, "Z ; CH, CY; DE, DK, ES, FI, FF, GB, GA, IE, IT, LÚ, MC, NL; PT, SĒ, CF; CA, CI, CM, CA, GN; GM, MI, MR, NE, SN, TD, TG ZW, AT; BF; BJ;

(Item 35 from file: 399)

DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

CA: 133(19) 265640e PATENT 133265640 Bacterial polysaccharide antigen vaccine

37/3, K/41

INVENTOR (AUTHOR): Capiau, Carine; Deschamps, Marguerite; Desmons, Pierre M chel; Laferriere, Oraig Antony Joseph; Pool man, Jan; Prieels, Jean-paul

LCCATI ON: Belg.
ASSI CNIES: Smithkline Beecham Biologicals S.A.
PATENT: PCT International; WO 200056360 A2 DATE: 20000928
APPLICATI ON: WO 2000EP2488 (20000317) \*C8 996437 (19900715)

\*\*CROMAN CONTROL OF THE CONTROL OF T

(19990420) \* OB 999466 (19990423) \* OB 9916677 (19990715) PAGES: 79 pp. CODEN: PLXXD2 LANGUAGE: English PATENT CLASSI FI CATI ONS:

CLASS: A61K-039/385A; A61K-039/39B; A61K-039/02B; A61K-039/005B;

A61K-039/116B: A61P-031/04B AT; AU; AZ; DESI GNATED COUNTRIES: AE: ΑM AG; AL; BA: BB: BG: BR; BY; DŽ; EE; KZ; ES; LC; CH; CN; CR; CU; CZ; DE;
ID; IL; IN; IS; JP; KE; DK; DM FI; GB; GD; Œ, LT, GH; GM, HR; HU: KG; KP: LK; LR, LS: KR; LU: LV: MA: MD: MN: MW MX: NO: NZ: PT: SG; SL: MG: MK: PL: RO: RU: SD: SE: SI: SK: TM T.I: VN: YU: TR: TT: TZ; UA; UG; US; UZ; ZA; ZW, AM, AZ, BY, KG, KZ, MD: RU: TJ TM DESIGNATED REGIONAL: GH: GMr KE: LS: MW SD: SL: SZ: TZ: UG: ZW AT: BE : CH; CY; DE; DK; ES; FI; FR; CB; CR; LE; LT; LU; MC; NL; PT; SE; BF; BJ;

Page 35

# OF: OG: CI: CM: GA: GN: GW: ML: MR: NE: SN: TD: TG

37/3, K/42 (Item 36 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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132075770 CA: 132(7)75770d JOURNAL

The genetic basis of the phase variation repertoire of lipopolysaccharide immunotypes in Neisseria meningitidis

Timunovypes in Neisseria implingitiols
AUTHOR(S): Jennings, Michael P.; Srikhanta, Yogitha N.; Moxon, E. Fichard
Kramer, Marco; Pooliman, Jan T.; Kuipers, Betsy; Van der Ley, Peter
LCCATION: Department of Microbiology and Parasitology, University of
Queensland, Brisbane, 4072, Australia
JOLFNAL: Microbiology (Peading, U. K.) DATE: 1999 VOLUME: 145 NUMBER:
11 PAGES: 3013-3021 CODENAMOBEO ISSN: 1350-0872 LANGUAGE: English PUBLISHER: Society for General Microbiology

(Item 37 from file: 399) 37/3. K/43 DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

CA: 132(3)21928t 132021928 JOURNAL

Immunogenicity of various presentation forms of PorA outer membrane Jan

LOCATION: Laboratory for Vaccine development and Immune Mechanisms, National Institute of Public Health and Environment, 1, 3720 BA, Bilthoven,

JOURNAL: Vaccine DATE: 1999 VOLUME: 17 NUMBER: 20-21 PAGES: 2702-2712 CODEN: VACCOE I SSN: 0264-410X PUBLI SHER I TEM I DENTI FI ER: 0264-410X(99)00011-0 LANGUAGE: English PUBLISHER: Elsevier Science Ltd.

(Item 38 from file: 399) 37/3. K/44 DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

131072565 CA: 131(6)72565j JOURNAL

Cellular immune responses to Neisseria meningitidis in children

Cellular immune responses to Neisseria meningitidis in children AUTHOR(S): Pollard, Andrew J.; Galassini, Pachel; Van Der Voort, Elleene M Rouppe; Hibberd, Martin; Booy, Robert; Langford, Paul; Nadel, Simon; Ison, Catherine; Kroll, J. Simon; Pool man, Jan; Levin, Michael LCCATIOV: Paediatric Infectious Diseases Unit, Imperial College School of Medicine, St. Mary's Hospital, Norfolk Place, London, UK, We IPG JOURNAL: Infect. Immun. DATE: 1999. VCLUME: 67 NUMBER: 5 PACES: 2452: 2463. COCCHY. INFI BR. SSN: 0019-3567 LANGUAGE: English PUBLISHER:

American Society for Microbiology

37/3, K/45 (Item 39 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

131072478 CA: 131(6)72478h J OURNAL Humoral immune responses to Neisseria meningitidis in children AUTHOR(S): Pollard, Andrew J.; Galassini, Rachel; Van Der Voort, Eileene M Rouppe; Booy, Robert; Langford, Paul; Nadel, Simon; Ison, Catherine; Kroll, J. Simon; Poolman, Jan; Levin, Michael

LOCATION: Paediatric Infectious Diseases Unit, Imperial College School of

Medicine, St. Mary's Hospital, Norfolk Place, London, UK W2 1PG DIPNAL: Infect. Immun. DATE: 1999 VCLUME: 67 NUMBER: 5 PAGES: 2441-2451 COODN: INFIBR ISSN: 0019-9567 LANGLIAGE: English PUBLISHER: American Society for M crobiology

37/3 K/46 (Item 40 from file: 399) DLALOG/ B) File 399: CA SEARCH/ B)

(c) 2010 American Chemical Society, All rts, reserv.

128060467 CA: 128(6)60467d J OURNAL

Human B- and T-cell responses after immunization with a hexavalent PorA

meningococal outer membrane vesicle vaccine
Ann Dijken, Harry; Kuipers,
Betsy; Van der Biezen, Jenny; Van der Ley, Peter; Meylis, Jolanda;

Claassen, Ivo; Poolman, Jan

LCCATICN: Laboratory of Vaccine Development and Immune Mechanisms, National Institute of Public Health and the Environment, Bilthoven, JOURNAL: Infect. Immun. DATE: 1997 VOLUME: 65 NUMBER: 12 PACES: 5184-5190 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English PUBLISHER: American Society for M crobiology

37/3, K/47 (Item 41 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

127291839 CA: 127(21)291839x JOURNAL

Bactericidal antibody recognition of a PorA epitope of Neisseria meningitidis: crystal structure of a Fab fragment in complex with a

fluorescein-conjugated peptide AUTHOR(S): van den Elsen, Jean M H.; Herron, James N.; Hoogerhout, Peter; Poolman, Jan T.; Boel, Edwin; Logtenberg, Ton; Wilting, Jaap; Crommelin, Daan J.A.; Kroon, Jan; Gros, Piet LCCATION: Department of Pharmaceutics, Faculty of Pharmacy, Utrecht

Institute of Pharmaceutical Sciences, Utrecht University, 3584 CH, Utrecht, Net h

JOURNAL: Proteins: Struct., Funct., Genet. DATE: 1997 VOLUME: 29 NUMBER: 1 PAGES: 113-125 CODEN: PSFGEY ISSN: 0887-3585 LANGUAGE: English PUBLISHER: Wiley-Liss

37/3 K/48 (Item 42 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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JOURNAL 127064218 CA: 127(5)64218a

On the interaction between a bactericidal antibody and a PorA epitope of Neisseria meningitidis in outer membrane vesicles: a competitive fluorescence polarization immunoassay

AUTHOR(S): van den Elsen, Jean M. H.; van Pomeren, Erik; Poolman, Jan T.; Wilting, Jaap: Herron, James N.; Crommelin, Daan J. A.
LCCATION: Dep. Pharmaceutics, Utrecht Inst. Pharmaceutical Sci., Utrecht

3584. Utrecht, Neth. JOURNAL: Anal. Biochemi DATE: 1997 VOLUME: 247 NUMBER: 2 PAGES: 382-388 CODEN: ANBCA2 ISSN: 0003-2697 LANGUAGE: English PUBLISHER:

Academi c

(Item 43 from file: 399) 37/3 K/49 DLALCG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society, All rts, reserv.

CA: 126(26)339433u 126339433 J OURNAL Isolation and characterization of the Neisseria meningitidis IpxD-fabZ-IpxA gene cluster involved in lipid A biosynthesis AUTHOR(S): Steeghs, Liana; Jennings, Michael P.; Pooliman, Jan T.; van der

LCCATION: Laboratory of Vaccine Development and Immune Mechanisms, National Institute of Public Health and the Environment, Antonie van

Leguvenhoeki aan 9, P.O. Box 1, 3720, BA Bilthoven, Neth-Ges JOURNAL: Gene DATE: 1997 VOLUME: 190 NUMBER: 2 PAGES: 263-270 CODEN: GENEDB 158N: 0378-1119 PUBLISHER ITEM IDENTIFIER 0378-1119(97)00005-X LANGUAGE: English PUBLISHER: Elsevier

37/3, K/50 (Item 44 from file: 399) DIALOGY R) FILE 399: CA SEARCH( R)

(c) 2010 American Chemical Society. All rts. reserv.

126276097 CA: 126(21)276097a J OURNAL Epitope specificity of murine and human bactericidal antibodies against PorA P1.7,16 induced with experimental meningococcal group B vaccines AUTHOR'S: Rouppe van der Voort, Erleene M; Kulpers, Betsy; Brugghe, Humphrey F; van Uhen, Leontine M A; Timmermans, Hans A M; Hoogerhout, Peter; Pool man, Jan T.

LOCATICN: Laboratory of Vaccine Development and Immune Mechanisms,
National Institute of Public Health and the Environment, Laboratory of Vaccine Development and Immune Mechanisms (LVM), P.O. Box 1, 3720, BA

Bitthoven, Neth.

JOURNAL: FEMS Immunol. Med. Microbiol. DATE: 1997 VOLUME: 17 NUMBER: 3

PAGES: 139-148 CODEN: FIM EV ISSN: 0928-8244 LANGUAGE: English PUBLISHER: El sevi er

37/3. K/51 (Item 45 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

126183541 CA: 126(14)183541a JOURNAL Response of Neisseria meningitidis to iron limitation AUTHOR(S): Pettersson, Annika; Poolman, Jan T.; Van Der Ley, Peter; Tormassen, Jan

LOCATION: Department of Molecular Cell Biology and Institute of Biomembranes, Utrecht University, 3584 CH, Utrecht, Neth. JOUFNAL: Antonie van Leeuwenhoek DATE: 1997 VOLUME: 71 PAGES: 129-136 CODEN: ALJMAO ISSN: 0003-6072 LANGUAGE: English PUBLI SHER: Kluwer

37/3, K/52 (Item 46 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

126101506 CA: 126(8) 101506v JOURNAL Sequence variability of FrpB, a major iron-regulated outer-membrane

protein in the pathogenic neisseriae AUTHOR'S: van der Ley, Peter; van der Biezen, Jenny; Stumuller, Poger; Hougerhout, Peter; Poolman, Jan T. LCOATION, Lab. Accine Dev. Immune Mechanisms, Natl. Inst. Public Health

Environ, 3720 BA, Bilthoven, Neth.

JOHNAL: Microbiology (Peading, U.K.) DATE: 1996 VOLUME: 142 NUMBER.

JPAGES, 3269-3274 CODEN: MROBEO ISSN: 1350-0872 LANGUAGE: English PUBLISHER: Society for General Microbiology

(Item 47 from file: 399) 37/3, K/53

DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society, All rts, reserv.

CA: 126(8) 100085v J OURNAL

Analysis of the icsBA locus required for biosynthesis of the inner core region from Neisseria meningitidis lipopolysaccharide AUTHOR(S): van der Ley, Peter; Kramer, Marco; Martin, Adele; Richards,

James C.; Pool man, Jan T.

LOCATION: Laboratory of Vaccine Development and Immune Mechanisms, National Institute of Public Health and the Environment, 3720 BA, Bilthoven . Net h.

JOURNAL: FEMS M crobiol. Lett. DATE: 1997 VOLUME: 146 NUMBER: 2 PAGES: 247-253 CODEN: FM.ED7 ISSN: 0378-1097 LANGUAGE: English PUBLISHER: Elsevier

37/3. K/54 (Item 48 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

125055826 CA: 125(5)55826d JOURNAL Specificity of human bactericidal antibodies against PorA P1.7,16 induced with a hexavalent meningococcal outer membrane vesicle vaccine AUTHOR(S): van der Voort, Eileene Rouppe; van der Ley, Peter; van der Biezen, Jenny; George, Stephen; Tunnela, Outi; van Dijken, Harry; Kuipers,

Pool man, Jan LCCATION: Lab. Vaccine Development Immune Mechanisms, Natl. Inst. Public Health and Environment, Bilthoven, Neth.

JOURNAL: Infect. Immun. DATE: 1996 VOLUME: 64 NUMBER: 7 PAGES: 2745-2751 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English

37/3. K/55 (Item 49 from file: 399) DI ALOG( R) File 399: CA SEARCH( R)

(c) 2010 American Chemical Society. All rts. reserv.

124340417 CA: 124(25)340417g JOUFNAL Quil A, anti-carbohydrate antibody specificity and biological function AUTHOR(S): Snippe, H; Alonso de Velasco, E; Verheul, A.F.M; Poolman,

LCCATION: Eijkman-Winkler Institute for Medical and Clinical Microbiology Utrecht University, 3584 CX, Utrecht, Neth. JOURNAL: NATO ASI Ser., Ser. A DATE: 1995 VOLUME: 282 NUMBER: Vaccines: New Generation Immunological Adjuvants PAGES: 25-33 CODEN:

37/3, K/56 (Item 50 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

NALSDJ ISSN: 0258-1213 LANGUAGE: English

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124252269 CA: 124(19)252269e J OURNAL

Identification of a locus involved in meningococcal lipopolysaccharide biosynthesis by deletion mutagenesis

AUTHOR(S): van der Ley, Pete; Kramer, Marco; Steeghs, Liana; Kuipers, Betsy; Andersen, Svein R.; Jennings, Michael P.; Moxon, E. Flichard; Pool man, Jan T

LOCATION: Lab. Vaccine Development and Immune Mechanisms. Natl. Inst. Public Health and Environmental Protection, 3720 BA, Bilthoven, Neth. JOHNAL: Mb. M crobiol. DATE 1996 VCLUME: 19 NUMBER: 5 PAGES: 1117-25 CODEN: MCM EE ISSN: 0950-382X LANGLAGE: English

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10523114HSFTBP, t xt
37/3, K/57 (Item 51 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society, All rts, reserv.
  123134286
                  CA: 123(11)134286q
                                              J OURNAL
  Construction of Neisseria meningitidis strains carrying multiple
  chromosomal copies of the por A gene for use in the production of a
  multivalent outer membrane vesicle vaccine
  AUTHOR(S): Ley, Peter van der; Biezen, Jenny van der; Poolman, Jan T.
LCCATION: National Institute Public Health and Environmental Protection,
3720 BA, Bilthoven, Neth.
  JOURNAL: Vaccine DATE: 1995 VOLUME: 13 NUMBER: 4 PAGES: 401-7
  CODEN: VACCOE I SSN: 0264-410X LANGUAGE: English
 37/3. K/58
                   (Item 52 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
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                  CA: 123(5)48814d
                                            J OURNAL
  123048814
  Molecular characterization of the structural gene for the lactoferrin receptor of the meningococcal strain H44/76.
AUTHCR(S): Pettersson, Annika; Klarenbeek, Vincent; van Deurzen, Jolanda;
Pool man, Jan T.; Tommassen, Jan
  LOCATION: Department of Molecular Cell Biology, Utrecht University, 3584
CH, Ütrecht, Neth.
JOURNAL: Microb. Pathog. DATE: 1994 VOLUME: 17 NUMBER:
395-408 CODEN: MIPAEV ISSN: 0882-4010 LANGUAGE: English
                                  DATE: 1994 VOLUME: 17 NUMBER: 6 PAGES:
37/3, K/59 (Item 53 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
  122311473
                   CA: 122(25)311473a
                                               JOURNAL
  Cloning and molecular analysis of the galE gene of Neisseria meningitidis
  and its role in lipopolysaccharide biosynthesis
AUTHOR(S): Jennings, Michael P.; Ley, Peter Van Der; Wilks, Kathy E.;
iskell, Duncan J.; Poolman, Jan T.; Moxon, Richard E.
LCCATION: Institute Molecular Medicine, John Padcliffe Hospital,
Hadington Oxford, UK, OX3 901. DATE: 1994 VOLUME: 730 NUMBER.
M CROIN PATHOGENESIS, AND I MAINE RESPONSE PAGES: 252-4 CODEN: ANYAA9
  ISSN: 0077-8923 LANGUAGE: English
 37/3, K/60
                   (Item 54 from file: 399)
DI ALOG( R) File 399: CA SEARCH( R)
(c) 2010 American Chemical Society. All rts. reserv.
  121238310
                  CA: 121(20)238310t
                                              J OURNAL
  Non-specific modulation of the immune response with liposomal
  meningococcal lipopolysaccharide: role of different cells and cytokines
  AUTHOR(S): Petrov, Alexander B.; Kolenko, Vladimir M; Koshkina, Nadezhda
V.; Zakirov, Muxim M; Bugaev, Lev V.; Semenova, Irina B.; Wiertz, Emmanuel
J. H. J.; Pool man, Jan T.
  LOCATION: Mechnikov Research Institute for Vaccines and Sera, Moscow,
Russi a. 103064
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JOURNAL: Vaccine DATE: 1994 VOLUME: 12 NUMBER: 12 PAGES: 1064-70

CODEN: VACCOE ISSN: 0264-410X LANGUAGE: English

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(Item 55 from file: 399)
37/3, K/61
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DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

CA: 121(19) 228043u CONFERENCE PROCEEDING

Development of outer membrane protein-lipopolysaccharide-based vaccines agai nst group-B meni ngococci

AUTHOR(S): Pool man, Jan T.; van der Ley, Peter A.; Peeters, Carla C. A. M; Werta, Emmanuel J. H. J.; Hooger hout, Peter; Claassen, Ivo J. T. M. LCCATICN: Lab. Vaccine Dev., RIVM, 3720, Bilthoven, Neth. JOUFNAL: Vaccines 94: Mod. Approaches New Vaccines Incl. Prev. AIDS,

(Annu. Meet.), 11th EDITOR: Norrby, Erling (Ed) DATE: 1994 PAGES: 137-40 CODEN: 60PMJ LANGLIAGE: English MeetING DATE: 930000 PUBLISHER: Cold Spring Harbor Lab. Press, Cold Spring Harbor, N.Y

(Item 56 from file: 399) 37/3. K/62 DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

CA: 121(7)78188d PATENT 121078188

Immunogenic meningocòccal lipopolysaccharides and outer membrane vesicles and vaccines derived from them

INVENTOR (AUTHOR): Van Der Ley, Peter Andre: Poolman, Jan Theunis; Hooger hout, Pet er

LCCATION: Net h.

ASSIGNEE: De Staat der Nederlanden, Vertegenwoordigd Door de Minister van

PATENT: PCT International: WO 9408021 At DATE: 940414

APPLICATION: W0 93NL163 (930730) NL 921716 (921002) PAGES: 62 pp. CODEN: PIXXD2 LANGUAGE: English PATENT CLASSIFICATIONS:

CLASS: C12N-015/61A; A61K-039/095B; C08B-037/00B; C12P-019/04B; C07K-009/00B; C12N-015/31B; C12N-001/21B; C07K-015/00B; C12N-001/21J; C12R-001/36J

ESIGNATED COUNTRIES: AT: AU; BB; BG; BR; BY; CA; CH; CZ; DE; DK; ES; FI; CB; HU; JP; KP; KP; KZ; LT; LU; MG; MN; MW; NL; NC; NZ; PL; PT; FC; FR; GB; CF; SK; UA; US; VN; DESIGNATED REGIONAL: AT; BE; CH; DE; KF; ES; FR; GB; CF; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG

37/3, K/63 (Item 57 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

120160967 CA: 120(13)160967v JOURNAL

Molecular characterization of the 98-kilodalton iron-regulated outer membrane protein of Neisseria meningitidis AUTHOR(S): Pettersson, Annika; van der Ley, Peter; Poolman, Jan T.;

Tormassen, Jan

LCCATION: Inst. Biomembr., Utrecht Univ., 3584 CH, Utrecht, Neth. JOURNAL: Infect. Immun. DATE: 1993 VOLUME: 61 NUMBER: 11 PAGES: 4724-33 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English

37/3, K/64 (Item 58 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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119268459 CA: 119(25) 268459z J CURNAL

Use of transformation to construct antigenic hybrids of the class 1 outer membrane protein in Neisseria meningitidis

Page 41

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10523114HSFTBP, t xt
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AUTHOR(S): van der Ley, Peter; van der Biezen, Jenny; Hohenstein, Peter; Peeters, Carla; Poolman, Jan T. LCCATION: Natl. Inst. Public Health Environ. Prote., 3720 BA, Bilthoven, Net h JOURNAL: Infect. Immun. DATE: 1993 VOLUME: 61 NUMBER: 10 PAGES: 4217-24 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English 37/3. K/65 (Item 59 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv. CA: 119(8)80197h PATENT Saccharide-peptide conjugate, its preparation and use in vaccine against gram negative bacteria ĬNVENTOŘ(AUTHOR): Hoogerhout, Peter; Poolman, Jan Theunis; Wiertz Jacques Henri; van Boom, Jacques Hubertus; van der Marel, Gysbert Arie; Boons, Gerardus Josephus Petrus LCCATION: Net h. ASSICNEE: Minister van Welzijn, Volksgezondheid en Oultuur PATENT: Netherlands Appl.; NL 9101359 A DATE: 930301 APPLICATION: NL 911359 (910807) PACES: 45 pp. CODEN: NAVXAN LANGUAGE: Netherlandish PATENT CLASSIFICATION CLASS: A61K-039/02A; A61K-039/095B; C07K-017/10B; C08B-037/00B; C08H-001/00B 37/3, K/66 (Item 60 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv. 119069941 CA: 119(7)69941a J OURNAL M croheterogeneity in the recognition of a HLA-DR2-restricted T cell epitope from a meningococcal outer membrane protein AUTHOR(S): Wiertz, Emmanuel; Van Gaans-Van den Brink, Jacqueline; AUIHCH SI. WIGHTZ, EIHBINDER, VAN GARISE VAN GENER BEITIN, GAZQUEETTIS, HOOGETHOUX, Peter; Pool man, Jan LOCATION: Nati. Inst. Public Health Environ., 3720 BA, Bilthoven, Neth. JOUFNAL: Eur. J. Immunol. DATE: 1993 VOLUME: 23 NUMBER: 1 PAGES: 232-9 COCEN: EJIMAF ISSN: 0014-2980 LANGUAGE: English 37/3 K/67 (Item 61 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society, All rts, reserv. 119067447 CA: 119(7)67447v JOURNAL The lipooligosaccharide immunotype as a virulence determinant in Neisseria meningitidis AUTHOR(S): Jones, Dennis M; Borrow, Raymond; Fox, Andrew J.; Gray, Stephen; Cartwright, Keith A.; Pool man, Jan T. LOCATION: Manchester Public Health Lab., Withington Hosp., Manchester, UK M20 8LR JOURNAL: M crob. Pathog. DATE: 1992 VOLUME: 13 NUMBE 219-24 CODEN: M PAEV I SSN: 0882-4010 LANGUAGE: English DATE: 1992 VOLUME: 13 NUMBER: 3 PAGES:

37/3, K/68 (Item 62 from file: 399) DIALOG/RIFILE 399: CA SEARCH/RI

(c) 2010 American Chemical Society. All rts. reserv.

118076965 CA: 118(9) 76965u JOURNAL Clonal and antigenic analysis of serogroup A Neisseria meningitidis with Page 42

particular reference to epidemiological features of epidemic meningitis in the People's Republic of China

AUTHOF(S): Wang, Jian Fu; Caugant, Dominique A; Li, Xinwu; Hu, Xujing; Pool man, Jan T.; Crowe, Brian A; Achtman, Mark LCCATIOK: Max-Planck Inst. Mol. Genet., Berlin, Germany, DW 1000/33 JOUFNAL: Infect Immun. DATE: 1992 VOLUME: 60 NUMBER: 12 PAGES: 5267-82 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English

37/3, K/69 (Item 63 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

118020553 CA: 118(3) 20553r JOURNAL

Construction of a multivalent meningococcal vaccine strain based on the class 1 outer membrane protein

AUTHOR(S): Van der Ley, Peter; Poolman, Jan T. LCCATION: Natl. Inst. Public Health Environ. Prot.. 3720 BA. Bilthoven.

JOURNAL: Infect. Immun. DATE: 1992 VOLUME: 60 NUMBER: 8 PAGES: 3156-61 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English

37/3, K/70 (Item 64 from file: 399) DIALOG(R) FILE 399: CA SEARCH(R)

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117109653 CA: 117(11)109653a JOURNAL

Identification of T cell epitopes occurring in a meningococcal class 1 outer membrane protein using overlapping peptides assembled with

of the heliotaile plotein using overlapping peptides assentions mit; simultaneous multiple peptide synthesis as sentences multiple peptide synthesis A Gaans-Van den Brink, Jacqueline A M; Gausepphl, Heinrich; Prochnicka-Chalufour, Ada; Hoogerhout, Peter; Poolman, Jan T. LCCATICN: Natl. Inst. Public Health Environ. Prot., 3720 BA, Bilthoven,

JÖURNAL: J. Exp. Med. DATE: 1992 VOLUME: 176 NUMBER: 1 PAGES: 79-88 CODEN: JEMEAV ISSN: 0022-1007 LANGUAGE: English

37/3, K/71 (Item 65 from file: 399) DIALOG(R) FILE 399: CA SEARCH(R)

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117022939 CA: 117(3) 22939z

Jan

JOURNAL Topology of outer membrane porins in pathogenic Neisseria spp

AUTHOR'S: Van der Ley, Peter; Heckels, John E; Vrji, Muntaz; Hoogerhout, Peter; Pool man, Jan T. LCCATION: Natl. Inst. Public Health Environ. Prot., 3720 BA, Bilthoven,

Net h. JOURNAL: Infect. Immun. DATE: 1991 VOLUME: 59 NUMBER: 9 PAGES: 2963-71 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English

(Item 66 from file: 399) 37/3. K/72 DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

CA: 116(5)39313t J OURNAL The influence of the adjuvant Quil A on the epitope specificity of meningococcal lipopolysaccharide anti-carbohydrate antibodies AUTHOR(S): Verheul. Andre F. M.: Pool man. Jan T.: Snippe. Harm Verhoef.

LCCATION: Dep. Exp. Microbiol., Utreeht Univ., NL-3584 CX, Utrecht, Neth. JORNAL: Mbl. Immunol. DATE: 1991 VOLUME: 28 NUMBER: 11 PAGES: 1193-200 CODEN. MOI MD5 ISSN: 0161-5590 LANGLINGE: English

(Item 67 from file: 399) 37/3. K/73 DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society. All rts. reserv.

116019384 CA: 116(3)19384p JOUFNAL T cell recognition of Neisseria meningitidis class 1 outer membrane proteins. Identification of T cell epitopes with selected synthetic peptides and determination of HLA restriction elements

AUTHOR(S): Wertz, Emmanuel J. H. J.; Van Gaans-Van den Brink, Jacqueline A. M.; Schreuder, Geziena M. T. H.; Termijtelen, Annemarie A. M.; Hoogerhout, Peter; Poolman, Jan T. LCCATION: Natl. Inst. Public Health Environ. Protect., 3720 BA, Bilthoven

Net h

JOURNAL: J. Immunol. DATE: 1991 VOLUME: 147 NUMBER: 6 PAGES: 2012-18 CODEN: JOIMA3 ISSN: 0022-1767 LANGUAGE: English

37/3, K/74 (Item 68 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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116004793 CA: 116(1)4793x JOURNAL

Effect of carrier priming on immunogenicity of saccharide-protein conjugat e vacci nes

AUTHOR(S): Peeters, Carla C. A. M.; Tenbergen-Meekes, Anne Marie; Poolman, Jan T.; Beurret, M.chel; Zegers, Ben J. M.; Fijkers, Ger T. LCCATIOK: Dep. Immunol., Univ. Hosp. Child. Youth, 3501 CA, Urrecht, Net h.

JOURNAL: Infect. Immun. DATE: 1991 VOLUME: 59 NUMBER: 10 PAGES: 3504-10 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English

37/3. K/75 (Item 69 from file: 399) DIALOG/ RIFILE 399: CA SEARCH/ RI

(c) 2010 American Chemical Society. All rts. reserv.

CA: 115(11)112260j CONFERENCE PROCEEDING 115112260

Mapping of human T-cell epitopes, occurring in the meningococcal class 1 outer membrane protein

AUTHCR(S): Wertz, Emmanuel J. H. J.; Van Gaans, Jacqueline A. M.; pogerhout, Peter; Seid, Robert C., Jr.; Heckels, John E.; Schreuder, Hoogerhout, Peter; Seid, Robert C., Jr.; Heckers, John E., Communic., Geziena M. T.; Pool man, Jan T.
LCCATION: Natl. Inst. Public Health and Environ. Protect., 3720 BA,

Billhoven, Neth.

Billhoven, Neth.

Chem. Struct. Biol. Proc. Am. Pept. Symp., 11th

JOHNAL: Pept.

EDITOR Fivier. Jean E. (Ed), Marshall, Garland R. (Ed), DATE: 1990

PACES: 731-2 CODEN: Solt/AF LANGLAGE: English MEETING DATE: 890000

Bibl. Leiden. Neth

37/3. K/76 (Item 70 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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CA: 114(15)141403t PATENT 114141403

Meningococcal class 1 outer-membrane protein vaccine

INVENTOR(AUTHOR): Seid, Robert C., Jr.; Paradiso, Peter R.; Poolman, Jan T.; Hoogerhout, Peter; Wiertz, Emmanuel J. H. J.; Van der Ley, Peter; Page 44

Heckels, John Edward; Clarke, Ian Nicholas

LOCATÍON: USA

ASSIGNEE: Praxis Biologics, Inc.; Rijksinstituut voor Volksgezondheid en M I i euhygi ene

PCT International; WO 9006696 A2 DATE: 900628 PATENT: APPLI CATI CN: WO 89US5678 (891219) \*NL 883111 (881219) \*NL 8930 (890106)

\*NL 891612 (890626) PAGES: 121 pp. CODEN: PLXXD2 LANGUAGE: English

PATENT CLASSI FI CATIONS:

CLASS: A31K-039/095; C07K-013/00; C07K-007/04; A61K-039/39; A61K-039/385; C12N-015/31; C12N-015/62; C12R-001/36
DESIGMATED COLUNTRIES: AU; DK; F1; JP; NO; US DESIGNATED REGIONAL: AT; BE; CH; DE; ES; FR; GB; IT; LU; NL; SE

37/3, K/77 (Item 71 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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113229202 CA: 113(25)229202s JOURNAL

Monoclonal antibodies against the 70-kilodalton iron-regulated protein of Neisseria meningitidis are bactericidal and strain specific

Nersseta in ingitions are bacterious and start specific and AUTHOR(S): Petterson, Annika; Kuipers, Betsy; Pelzer, Marga; Verhagen, Elly; Tiesjema, Rudy H.; Tommassen, Jan; Poolman, Jan T. LCOATIOK: Lab. Bacter. Vaccines, Natl. Inst. Public Health Environ. Prot. 3720 BA, Bilthoven, Neth.

DATE: 1990 VOLUME: 58 NUMBER: 9 PAGES: JOURNAL: Infect. Immun. 3036-41 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English

37/3. K/78 (Item 72 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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CA: 113(17) 150210i JOURNAL

Deduced amino acid sequences of class 1 protein (PorA) from three strains of Neisseria meningitidis. Synthetic peptides define the epitopes

responsible for sero subtype specificity of the spirobase and the spirobase responsible for sero subtype specificity of the spirobase for CODEN: JEMEAV ISSN: 0022-1007 LANGUAGE: English

37/3, K/79 (Item 73 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

CA: 113(7)55510y J OURNAL Isolation of Neisseria meningitidis mutants deficient in class 1 (Por A) and class 3 (PorB) outer membrane proteins

AUTHOR(S): Tommassen, Jan; Vermeij, Paul; Struyve, Marlies; Benz, Roland; Pool man, Jan T. LOCATION: Inst. Mol. Biol. Med. Biotechnol., State Univ. Utrecht, 3584 CH

Utrecht, Neth. JOURNAL: Infect. Immun. JOURNAL: Infect. Immun. DATE: 1990 VOLUME: 58 NUMBER: 5 PAGES: 1355-9 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English

37/3. K/80 (Item 74 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv. Page 45

CA: 110(17)151020x J CURNAL 110151020 Purification, cyanogèn bromide cleavage, and amino terminus sequencing of class 1 and class 3 outer membrane proteins of meningococci AUTHOR(S): Pool man, Jan T.; Timmer mans, Hans A. M; Teerlink, Tom Seid. Robert C., Jr. LCCATICN: Dep. Bact. Vaccine Dev., Natl. Inst. Public Health Environ. Prot., Bilthoven, Neth. JOURNAL: Infect. Immun. DATE: 1989 VOLUME: 57 NUMBER: 3 PAGES: 1005-7 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English 37/3. K/81 (Item 75 from file: 399) DIALOG/ B) File 399: CA SEARCH/ B) (c) 2010 American Chemical Society, All rts, reserv. CA: 109(19)168547b JOURNAL Electromorphic characterization and description of conserved epitopes of the lipooligosaccharides of group A Neisseria meningitidis
AUTH-CR(S): Kim Janice J.; Mandrell, Robert E.; Hu, Zhen; Westerink, M
A. Julie; Pool man, Jan T.; Griffiss, McLeod
LCCATION: Cent. Immunochem, Univ. California, San Francisco, CA, 94143, LISA JOURNAL: Infect. Immun. DATE: 1988 VOLUME: 56 NUMBER: 10 PAGES: 2631-8 CODEN: INFIBR ISSN: 0019-9567 LANGUAGE: English 37/3. K/82 (Item 76 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv. CA: 109(17)147592x JOURNAL Monoclonal antibodies to the rough lipopolysaccharide of Neisseria meningitidis protect infant rats from meningococcal infection AUTHOR(S): Saukkonen, Kirsi; Leinonen, Maija; Kayhty, Helena; Abdillahi, Hussein; Poolman, Jan T. LCOATH ON: Natl. Public Health Inst., Helsinki, Finland LCOATH ON: Natl. Full ic Health Inst., Helsinki, Finland JOURNAL: J. Infect. DI. DATE: 1988 VOLUME: 158 NUMBER: 1 PAGES: 200-12 COODEN: JID IO. ISSN: 0022-1899 LANGUAGE: English 37/3. K/83 (Item 77 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv. 108053934 CA: 108(7)53934n JOUFNAL Protective efficacy of monoclonal antibodies to class 1 and class 3 outer membrane proteins of Neisseria meningitidis B:15; P1.16 in infant rat infection model: new prospects for vaccine development AUTHOR(S): Saukkonen, Kirsi; Abdillahi, Hussein; Poolman, Jan T.; Leinonen. Maiia yllouleil, wal)a LCCATION: Natl. Public Health Inst., SF-00280, Helsinki, Finland JOUFNAL: M.crob. Pathog. DATE: 1987 VOLUME: 3 NUMBER: 4 PAGES: 261-7 CODEN: M.PAEV ISSN: 0882-4010 LANDJAGE: English 37/3, K/84 (Item 78 from file: 399) DIALOG(R) File 399: CA SEARCH(R) (c) 2010 American Chemical Society. All rts. reserv.

CA: 104(19) 166503a CONFERENCE PROCEEDLING Proposed scheme for identification of serotypes of Neisseria meningitidis AUTHOR(S): Frasch, Carl E.; Zollinger, Wendell D.; Poolman, Jan T.

Page 46

104166503

LCCATION: Div. Bact. Prod., Cent. Drugs Biol., Bethesda, MD, 20205, USA JOUFNAL: Pathog. Neisseriae, Proc. Int. Symp., 4th EDITOR: Schoolnik, Cary K (Ed), DATE: 1985 PACES: 519-24 OODEN: 54ZAAE LANGJACE: English METING DATE: 840000 PUBLISHER: Am Soc. Microbiol., Washington, D. C

(Item 79 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society, All rts, reserv.

104105821 CA: 104(13)105821n CONFERENCE PROCEEDING Influence of the length of lipopolysaccharide molecules on the surface exposure of class 1 and 2 outer membrane proteins of Neisseria meningitidis 2996 (B:2b:P1.2)

AUTHOR(S): Poolman, Jan T.; Wientjes, Frans B.; Hopman, Carla T. P.; Zanen, H. C.

LOCATION: Lab. Med. M crobiol., Univ. Amsterdam, 1105 AZ, Amsterdam,

JOURNAL: Pathog, Neisseriae, Proc. Int. Symp., 4th EDITOR: Schoolnik, Gary K (Ed), DATE: 1985 PAGES: 552-70 CODEN: 54ZAAE LANGLAGE: English MEETING DATE: 840000 PUBLISHER: Am Soc. Microbiol., Washington, D. C

37/3, K/86 (Item 80 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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102130006 CA: 102(15)130006s JOURNAL

Monoclonal antibody activity against native and denatured forms of gonococcal outer mémbrane proteins as detected within ultrathin,

longitudinal slices of polyacrylamide gels
AUTHOR(S): Poolman, Jan T.; Buchanan, Thomas M
LCOATION: Immunol. Aes. Lab., Pac. Med. Cent., Seattle, WA, 98114, USA
JOHNAL: J. Immunol. Methods DATE: 1984 VOLUME: 75 NUMBER: 2 PAGES:
265-74 CODEN: JIMMSG ISSN: 0022-1759 LANGUAGE: English

37/3, K/87 (Item 1 from file: 149) DIALOG(R) File 149: TOG Health & Wellness DB(SM) (c) 2010 Gale/Cengage, All rts, reserv.

SUPPLI ER NUMBER: 13913418 01394621

Meningococcal lipopolysaccharides: virulence factor and potential vaccine component.

Verhuel, A.F.M; Snippe, H.; Pool man, J.T. M crobiological Reviews, v57, n1, p34(15)

March,

1993

PÜBLICATION FORMAT: Magazine/Journal ISSN: 0146-0749 LANGUAGE: English RECORD TYPE: Abstract TARGET AUDIENCE: Academic

... Pool man, J. T.

ABSTRACT: Lipopolysaccharides (LPS) are found in the outer membrane of the gram negative diplococcus Neissèria meningitidis and are linked to the virulence of the bacteria. The differences between the immunotypes...

... DESCRIPTORS: Neisseria meningitidis

37/3. K/88 (Item 2 from file: 149) DIALOG(R) File 149: TGG Health&Wellness DB(SM) (c) 2010 Gale/Cengage. All rts. reserv.

SUPPLI ER NUMBER: 10519497 (USE FORMAT 7 OR 9 FOR FULL TEXT) 01295121 Point mutation in meningococcal por A gene associated with increased endemic di sease.

McDinness, B.T.; Clarke, I.N.; Lambden, P.R.; Barlow, A.K.; Poolman, J.T.; Jones, D.M.; Heckels, J.E. The Lancet, v337, n8740, p514(4)

March 2.

PUBLICATION FORMAT: Magazine/Journal ISSN: 0099-5355 LANGUAGE: English RECORD TYPE: Fulltext; Abstract TARGET AUDI ENCE: Professional WORD COUNT: 2000 LINE COUNT: 00200

... Pool man. J. T

ABSTRACT: Meningococci (Neisseria meningitidis) are organisms that cause meningococcal infections, of which the most common complication is meni nai t i s. . .

..one case of meningitis in Gloucester was analyzed. Por Algenes from other strains of Neisseria meningitidis were also analyzed for comparative purposes. Results showed that the amino acid sequence from ..

- ..protein, responsible for antigenic subtype specificity, has been cloned and sequenced in an isolate of Neisseria meningitidis (B: 15: P1. 7, 16) from a patient in the Gloucester area with meningococcal... properties of the class 1 protein in this and related isolates. Met hods
- meningococcal reningitidis were from patients with meningococcal meningitidis were from patients with meningococcal meningitis and were submitted to the PHLS Meningococcal Reference. . KAV, Stuart JM, Jones DM, Noah ND. The Stonehouse survey: nerelence... Awy, Stuart IM, Johes DW, Noball ND. The Schlenbuse Su nasopharyngeal carriage of meningococci and Neisseria lactamica, Epidem Inf 1987; 99: 591-601. (2) Poolman JT, Lind I, Jonsdottir K, Froholm...

- (3) Knight Al, Cartwright KAV, McFadden J. Identification of a UK outbreak strain of Neisseria meningitidis with a DNA probe. Lancet 1990; 335: 1182-84.
  - (4) McQuinness B, Barlow AK...
- ..al. Deduced amino acid sequences of class 1 protein (Por A) from three strains of Neisseria meningitidis: synthetic peptides dèfine the epitopes responsible for serosubtype specificity. J Exp Med 1990: 171: 1871-78.
- (5) Frasch CE, Zollinger WD, Poolman JT. Serotype antigens of Neisseria meningitidis and a proposed scheme for designation of serotypes. Rev Infect Dis 1985; 7: 504 9) Frasch CE, Tsai C-M Mbcca LF. Outer membrane proteins of Neisseria meningitidis: structure and importance in meningococcal disease. Qin invest Med 1986; 9: 101-07. (1...

...57: 1590-98.

- (11) Barlow AK, Heckels JE, Clarke IN. Molecular dioning and expression of Neisseria meningitidis class 1 outer membrane protein
- in Escherichia coli K-12. Infect Immun 1987; 55: 2734-40. (12) Barlow AK, Heckels JE, Clarke IN. The class 1 outer membrane of
- Neisseria meningitidis: gene sequence, structural and immunological similarities to gonococcal porins. Mol Microbiol 1989; 3: 131-39.

  (13) Abdillahi H. Pool man JT. Neisseria meningitidis group B serosubtyping using monoclonal antibodies in whole cell ELISA. Microb Pat hogen 1988; 4...

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... 47: 139-44.
      (15) Virji M, Zak K, Heckels JE. Outer membrane protein III of
Neisseria gonorrhoeae: variations in biological properties of
antibodies directed against different epitopes. J Gen Microbiol 1987...
(16) Jones DM, For AJ, Gray SJ, Saunders NA. DNA probes for typing
Neisseria meningitidis. Lancet 1990; 336: 53-54.
... DESCRIPTORS: Neisseria meningitidis...
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>>>Duplicate detection is not supported for File 391.
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>>>KWC option is not available in file(s): 399
40/3, K/1 (Item 1 from file: 24)
DIALOG(R) File 24: CSA Life Sciences Abstracts
(c) 2010 CSA. All rts. reserv.
                   I P ACCESSI ON NO: 13315803
0004246786
An Outer Membrane Receptor of Neisseria meningitidis Involved in Zinc
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Acquisition with Vaccine Potential

Stork, Michiel; Bos, Martine P; Jongerius, Ilse; de Kok, Natasja; Schilders, Ingrid; Weynants, Vincent E; Poolman, Jan T; Tommassen, Jan

Department of Molecular Microbiology, Utrecht University, Utrecht, The Netherlands

PLoS Pat hogens, v 6, n 7, p [np], July 1, 2010 PUBLI CATI CN DATE: 2010

PUBLISHER: Public Library of Science, 185 Berry Street San Francisco CA 94107 United States of America

DOCUMENT TYPE: Journal Article RECORD TYPE: Abstract LANGUAGE: English SUMMARY LANGUAGE: English ISSN: 1553-7366 ELECTRONIC ISSN: 1553-7374

FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

An Outer Membrane Receptor of Neisseria meningitidis Involved in Zinc Acquisition with Vaccine Potential

Stork, Michiel; Bos, Martine P; Jongerius, IIse; de Kok, Natasja; Schilders, Ingrid; Weynants, Vincent E; Poolman, Jan T; Tommassen, Jan

## ABSTRACT:

... of identifying novel vaccine candidates, we characterized in this study a hitherto unknown receptor in Neisseria meningitidis. We demonstrate that this receptor, designated ZnuD, is produced under zinc limitation and that...

...In a search for putative vaccine components, we have characterized here a new receptor of Neisseria meningitidis, a resident of the nasopharynx that occasionally causes sepsis and meningitis. We show that...

...DESCRIPTORS: membranes; Pathogens; Pespiratory tract; Sepsis; Survival; Vaccines; Zinc; memingococal disease; pore-forming proteins; virulence factors; Neisseria memingitidis

40/3, K/2 (Item 2 from file: 24) DIALOG(R) File 24: CSA Life Sciences Abstracts (c) 2010 CSA. All rts. reserv.

0003160890 IP ACCESSION NO. 7931981 Additive and Synergistic Bactericidal Activity of Antibodies Directed against M nor Outer Membrane Proteins of Neisseria meningitidis

Weynants, Vincent E; Feron, Christiane M, Goral, Karine K; Bos, Martine P, Denoel, Phililippe A; Verlant, Vincent Q; Tommassen, Jan; Peak, Ian FA; Judd, Falph C; Jennings, M chael P; Poolman, Jan T G axoSmithKline Biologicals, B-1330 Fixensart, Belgium Department of Molecular M crobiology, Utrecht University, 3584-CH Utrecht, Theorem Colonial Colonial

Infection and Immunity, v 75, n 11, p 5434-5442, November 2007 PUBLICATION DATE: 2007

PUBLISHER: American Society for Microbiology, 1752 N Street N.W Washington, DC 20036 USA, [URL:http://www.asm.org/]

DCCUMENT TYPE: Journal Article RECORD TYPE: Abstract LANGLAGE: English SUMMARY LANGLAGE: English ISSN: 0019-9567 ELECTRONIC ISSN: 1098-5522

FILE SEGMENT: Immunology Abstracts; Bacteriology Abstracts (Microbiology B)

Additive and Synergistic Bactericidal Activity of Antibodies Directed against M nor Cuter Membrane Proteins of Neisseria meningitidis

Weynants, Vincent E; Feron, Christiane M; Goraj, Karine K; Bos, Martine P; Denoel, Philippe A; Verlant...

#### ABSTRACT:

Neisseria meningitidis serogroup B is a major cause of bacterial meningitis in younger populations. The available...

...DESCRIPTORS: Antibodies; Bactericidal activity; Children; Complement; Cross-protection; Membrane vesicles; Meningitis; Mimicry; Vaccines; outer membrane proteins; Neisseria meningitidis

40/3, K/3 (Item 3 from file: 24)
DIALCQ(R) File 24: CSA Life Sciences Abstracts
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0003148817 IP ACCESSION NO: 7930386 Comparison of Phenotypically Indistinguishable but Geographically Distinct Neisseria meningitidis Group Bisolates in a Serum Bactericidal Antibody Assav

Findlow, Jam's; Holland, Ann; Andrewe, Nick; Weynants, Vincent; Sotolongo, Franklin; Balmer, Paul; Poolman, Jan; Borrow, Pay Vaccine Evaluation Unit, Health Protection Agency North West, Manchester Laboratory, Manchester Medical Microbiology Partnership, P.O. Box 209, 2nd Floor, Clinical Sciences Building II, Manchester Royal Infirmary, Nanchester, Mi3 9WZ. Health Protection Agency, Centre for Infections, Colindale, London, NW6 SEQ, United Kingdom GlaxoSmithKiine Biologicals, Fixensart, Belgium, Finlay Institute, Ave 27N, 19085, La Lisa A P 160017, COd 11600, Havana, Cuba

Clinical and Vaccine Immunology, v 14, n 11, p 1451-1457, November 2007 PUBLICATION DATE: 2007

PUBLISHER: American Society for Microbiology, 1752 N Street N.W Washington, DC 20036 USA, [URL: http://www.asm.org/]
DCCUMENT TYPE: Journal Article
FECOPD TYPE: Abstract
LANGLAGE: English
SIMMARY LANGLAGE: English
ISSN: 1556-6811
ELECTRON C ISSN: 1556-679X

FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

Comparison of Phenotypically Indistinguishable but Geographically Distinct Page 51

Neisseria meningitidis Group B Isolates in a Serum Bactericidal Antibody Assay

Findlow, Jam'e; Holland, Ann; Andrews, Nick; Weynants, Vincent; Sotolongo, Franklin; Balmer, Paul; Poolman, Jan; Borrow, Ray

ABSTRACT:

The "gold standard" assay for measuring serologic protection against Neisseria meningitidis group B (MenB) is the serum bactericidal antibody (SBA) assay. Of vital importance to...

DESCRIPTORS: Antibodies; Capsular polysaccharides; Cenotypes; Lipooligosaccharides; Membrane vesicles; Outer membranes; Standardization; Vaccines; Neisseria meningitidis

40/3, K/4 (Item 4 from file: 24)
DIALOG(F) File 24: CSA Life Sciences Abstracts
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0002964326 IP ACCESSION NO: 7175484 Sheliding of immunogenic domains in Neisseria meningitidis FrpB (FetA) by the major variable region

Kortekaas, Jeroen; Pettersson, Annika; Van der Biezen, Jenny; Weynants, Vincent E; Van der Ley, Peter; Poolman, Jan; Bos, Martine P; Tommassen, Jan Department of Molecular M crobiology and Institute of Biomembranes, Utrecht University, Padualaan, 3584 CH Utrecht, The Netherlands, [mailto:mp.bos@bio.uu.nl]

Vacci ne, v 25, n 1, p 72-84, January 2007 PUBLI CATI ON DATE: 2007

PUBLISHER: Elsevier Science Ltd., The Boulevard Langford Lane Kidlington Oxford OX5 168 UK, [mailto:usinfo-f@elsevier.com], [URL:http://www.elsevier.nl]

DCCUMENT TYPE: Journal Article RECORD TYPE: Abstract LANGUAGE: English SUMMARY LANGUAGE: English ISSN: 0264-410X

FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

Shielding of immunogenic domains in Neisseria meningitidis FrpB (Fet A) by the major variable region

Kortekaas, Jeroen; Pettersson, Annika; Van der Biezen, Jenny; Wèynants, Vincent E; Van der Ley, Peter; Poolman, Jan; Bos, Martine P; Tommassen, Jan

...DESCRIPTORS: sequence; Epitope mapping; Immune response; Immunity; Immunization; Immunofluorescence; Microscopy; Vaccines; Variable region; outer membrane proteins; Neisseria meningitidis

40/3, K/5 (Item 5 from file: 24)
DIALCQ(R)File 24: CSA Life Sciences Abstracts
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0002950345 I P ACCESSI ON NO: 7047661

Immunogenicity and structural characterisation of an in vitro folded meningococcal siderophore receptor (FrpB, FetA)

Kortekaas, Jeroen; Mueller, Shirley A; Fingler, Philippe; Gregorini, Marco; Weynants, Vincent E; Putten, Lucy; Bos, Martine P; Tormassen, Jan

Department of Molecular Microbiology, Institute of Biomembranes, Utrecht University, Padual aan 8, 3584 CH Utrecht, The Netherlands, [mailto:mo.bos@oio.uu.nl]

M crobes and Infection, v 8, n 8, p 2145-2153, July 2006 PUBLICATION DATE: 2006

PUBLISHER: Editions Scientifiques et Medicales Elsevier, 23 rue Linois 75724 Paris cedex 15 France, [URL: http://www.elsevier.fr]

DCCUMENT TYPE: Journal Article RECORD TYPE: Abstract LANGUAGE: English SUMMARY LANGUAGE: English ISSN: 1286-4579

FILE SEGVENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

Kortekaas, Jeroen; Mueller, Shirley A; Fingler, Philippe; G'egorini, Marco; Wéynants, Vincent E; Putten, Lucy; Bos, Martine P; Tormassen, Jan

## ABSTRACT:

The iron-limitation-inducible protein FrpB of Neisseria meningitidis is an outer-membrane-localized siderophore receptor. Because of its abundance and its capacity...

...DESCRIPTORS: protein; Immunogenicity; Inclusion bodies; Laboratory animals; Protein folding; Protein structure; Vaccines; siderophore receptors: Escherichia coli: Neisseria meningitidis

40/3, K/6 (Item 6 from file: 24)
DIALOQ(P)File 24: CSA Life Sciences Abstracts
(c) 2010 CSA. All rts. reserv.

0002816358 IP ACCESSION NO: 6737828 Vaccine potential of the Neisseria meningitidis lactoferrin-binding proteins LbbA and LbbB

Pettersson, Annika; Kortekaas, Jeroen; Weynants, Vincent E; Voet, Pierre; Poolman, Jan T; Bos, Martine P; Tommassen, Jan Department of Molecular M crobiology, Institute of Blomembranes, Utrecht University, Padualaan 8, 3584 CH Utrecht, The Netherlands, [mailto:mo.bos@bio.uu.nl]

Vacci ne, v 24, n 17, p 3545-3557, 2006 PUBLI CATI ON DATE: 2006

PUBLISHER: Butterworth-Heinemann, 313 Washington St. Newton MA 02158 USA

DOCUMENT TYPE: Journal Article RECORD TYPE: Abstract LANGUAGE: English SUMMARY LANGUAGE: English

I SSN: 0264-410X

FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts Vacci ne potential of the Neisseria meningitidis lactoferrin-binding proteins LbpA and LbpB

Pettersson, Annika; Kortekaas, Jeroen; Weynants, Vincent E; Voet, Pierre; Pool man, Jan T; Bos, Martine P; Tommassen, Jan

## ABSTRACT:

The vaccine potential of the Neisseria meningitidis lactoferrin-binding proteins LbpA and LbpB was evaluated. Sequencing and sequence alignments suggested that...

...DESCRIPTORS: Outer membranes; Antisera; LbpA protein; Nucleotide sequence; Monoclonal antibodies; Bactericidal activity; Western blotting; LbpB protein; Neisseria meningitidis; Escherichia coli

40/3, K/7 (Item 7 from file: 24) DIALOG(R) File 24: CSA Life Sciences Abstracts (c) 2010 CSA. All rts. reserv.

0002705472 IP ACCESSION NO: 6188781 Function of Neisserial Outer Membrane Phospholipase A in Autolysis and Assessment of Its Vaccine Potential

Bos, Martine P: Tefsen, Boris; Voet, Pierre; Weynants, Vincent; Van Putten, Jos PM, Tommassen, Jan Department of Molecular Microbiology and Institute for Biomembranes. Department of Infectious Diseases and Immunology, Utrecht University, Utrecht, The Netherlands

Infection and Immunity, v 73, n 4, p 2222-2231, April 2005 PUBLICATION DATE: 2005

PUBLISHER: American Society for Microbiology, 1752 N Street N.W Washington, DC 20036 USA, [URL:http://www.asm.org/]

DCCUMENT TYPE: Journal Article RECORD TYPE: Abstract LANGUAGE: English SUMMARY LANGUAGE: English ISSN: 0019-9567

FILE SEGMENT: Bacteriology Abstracts (Microbiology B); Immunology Abstracts

Bos, Martine P; Tefsen, Boris; Voet, Pierre; Weynants, Vincent; Van Putten. Jos PM; Tommassen, Jan

## ABSTRACT:

Here, we investigated the presence, function, and vaccine potential of CMPLA in the human pathogen Neisseria meningitidis. Immunoblot analysis showed the presence of CMPLA in 28 out of 33 meningococcal strains

...strains all contained a pldA gene, but these alleles contained premature stop codons. All six Neisseria gonorrhoeae strains tested, but only two out of seven commensal neisserial strains investigated, expressed CMPLA

<sup>...</sup>DESCRIPTORS: Outer membranes; Antibodies; Phospholipase A; Commensals; phospholipase; Virulence; Phospholipids; Autolysis; Monsense mutation; pldA gene; Autolysins; Neisseria meningitidis; Page 54

Neisseria gonorrhoeae

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40/3, K/8 (Item 1 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
   152343487
                     CA: 152(15)343487u
                                                      PATENT
   Outer membrane vesicle (QMM) vaccine comprising protein NMB0964 from
   Neisseria meningitidis
   INVENTOR(AUTHOR): Bos, Martine Petronella; Poolman, Jan; Stork, Michiel;
Tommassen, Johannes Petrus Maria; Weynants, Vincent
LCCATION: Belg.
ASSIONEE: GlaxoSmithKline Biologicals S.A.; Utrecht University
PATENT: PCT International; WO 201025964 A1 DATE: 20100311
   APPLICATION: WD 2009EP52689 (20090306) *GB 200816447 (20080908) PAGES: 43pp. CODEN: PLXXD2 LANGUAGE: English
   PATENT CLASSI FI CATI ONS:
      IPCR/8 + Level Value Position Status Version Action Source Office:
         A61K-0039/095
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NL; NO; PL; PT; TG; BW; GH; GM; KE; LS; MW; MZ; MA; SD; SL;
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                     (Item 2 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                      CA: 148(5)99084q
                                                    PATENT
   148099084
   Lipooligosaccharide meningococcal vaccines
INVENTOM(AUTHOR): Devos, Nathalie; Feron, Christiane; Poolman, Jan;
Weynants, Vincent
   LCCATION: Belg.
   ASSIGNEE: Glaxosmithkline Biologicals SA
   PATENT: PCT International ; WO 2007144316 A2 DATE: 20071221
   APPLI CATI CN: WO 2007EP55676 (20070608) *US 2006PV804475 (20060612) *US
2006PV804489 (20060612)
   PAGES: 83pp. CODEN: PI
PATENT CLASSI FI CATI ONS:
                        CODEN: PIXXD2 LANGUAGE: English
      CLASS:
                A61K-000/A
   DESI GNATED COUNTRI ES:
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40/3, K/10 (Item 3 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

(c) 2010 American Chemical Society, All rts, reserv.

146315013 CA: 146(16)315013u PATENT Serum bactericidal assay for Neisseria meningitidis specific antibodies INVENTOR(AUTHOR): De VIéeschauwer, Isabel; Durant, Nathalie; Poolman, Jan Weynants, Vincent LCCATION: Bel a. ASSIGNEE: Glaxosmithkline Biologicals S. A. PATENT: PCT International; WD 200728408 A1 DATE: 20070315 APPLICATION: WO 2005EP9566 (20050905)
PAGES: 52pp. CODEN: PIXXD2 LANGUAGE: English PATENT CLASSI FI CATI ONS: IPCR/8 + Level Value Position Status Version Action Source Office: A I F B 20060101 A I L B 20060101 C01N-0033/569 H EP H EP C12N-0001/22 AL; AM; DE; DE; DK; DD; IL; IN; IS; JP; MD; MG; MK; MN; SC; SD: DESIGNATED COUNTRIES: AE; AG, AL; AM, AT; AU; AZ; BA; BB; BG BR; BW EC, CA; CH; CN; CO; CR; CU; CZ; FI; DMt DZ, EE; EG, Œ: œ: GE; GH; GM; HR; HU; ID; LS; LT; LU; LV; MA; MD: KR; KZ; KE: KG: KM: KP: LR MY MX MZ: NA: NG: NI: NO; PG TZ: TZ: UG: ZM

40/3, K/11 (Item 4 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

BY; KG; KZ; MD; RU;

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JOURNAL 146161138 CA: 146(9)161138z

Immunogenicity and saifety of three doses of a bivalent (B: 4: P1. 19, 15 and B: 4: P1. 7-2. 4) meningococcal outer membrane vesicle vaccine in healthy adol escent s AUTHOR(S): Boutriau, Dominique; Pool man, Jan; Borrow, Ray; Findlow, Jam'e

TJ;

Domingo, Javier Diez; Puig-Barbera, Joan; Baldo, Jose Maria; Planelles, Victoria; Jubert, Angels; Colomer, Julia; Gl. Angel; Levie, Karin; Kervyn, Anne-Diane; Weynants, Vincent; Dominguez, Francisco; Barbera, Ramon; Stotolongo, Franklin

LOCATION: GaxoSmithKline Biologicals, Rixensart, Belg.

JOURNAL: Clin. Vaccine Immunol. (Clinical and Vaccine Immunology) DATE 2007 VOLUME: 14 NUMBER: 1 PAGES: 65-73 CODEN: CVILA6 ISSN: 1556-6811 LANGUAGE: English PUBLISHER: American Society for Microbiology

40/3. K/12 (Item 5 from file: 399) DIALOG(R) File 399: CA SEARCH(R)

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PATENT CA: 140(16) 259048w

Neisseria outer membrané FrpB proteins containing Loop-deletions for improved refolding and vaccine use

INVENTOR (AUTHOR): Biemans, Raiph; Denoel, Philippe; Feron, Christiane; Coraj, Karine; Kortekaas, Jeroen; Poolman, Jan; Tommassen, Jan; Weynants, Vi ncent

VINCENT CN: Belg.

LCCATION: Belg.
ASSIGNEE: Glaxosmithkline Biologicals S. A.; Utrecht University;
Technology Foundation (Stichting Voor de Technische Wetenschappen)
PATENT: PCT International; WO 200420463 A2 DATE: 20040311
APPLICATION: WO 2003E9634 (20030828) \* GB 200220199 (20020830) PATENT CLASSIFICATIONS:

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CLASS: C07K-014/00A
DESIGNATED COUNTRIES: AE; CA; CH; CN; CO; CR; CU; CZ;
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DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society, All rts, reserv.
                                      CA: 140(16)249770m
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1402497/0 CA: 140(16)2497/0m PAIENI

Refolding of recombinantly produced NspA protein from Neisseria using the

detergent SB-12 in an alkaline refolding buffer and use of NspA in the

treatment, prevention and diagnosis of Neisserial infections

INVENTOR(AUTHOR): Biermans, Paiph; Bos, Martine; Denoel, Philippe; Feron,

Christiane; Coraj, Karine; Poolman, Jan; Tommassen, Jan; Weynants, Vincent

LCATION: Belg.
      ASSIGNEE: Glaxosmithkline Biologicals S. A.; Utrecht University
PATENT: PCT International; WO 200420452 A2 DATE: 20040311
      APPLICATION: WO 2003EP10085 (20030828) *GB 200220197 (20020830) PAGES: 62 pp. CODEN: PLXXD2 LANGUAGE: English
     PAGES: 62 pp. CODEN: F
PATENT CLASSI FI CATI ONS:
           CLASS: C07K-000/A
      DESI GNATED COUNTRI ES:
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40/3, K/14 (Item 7 from file: 399)
DIALCQ(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
      140198071
                                      CA: 140(13)198071z
                                                                                                   PATENT
      Meningococcal genetically engineered vaccine composition which has a
      fixed or locked lipooligosaccharide (LOS) immunotype
     INVENTOR(AUTHOR): Biemans, Ralph; Denoel, Philippe; Feron, Christiane;
oraj, Karine; Jennings, Michael Paul; Poolman, Jan; Weynants, Vincent
      LOCATION: Beig.
     ASSIGNEE: Glaxosmithkline Biologicals Sa; The University of Queensland PATENT: PCT International; WD 200415099 A2 DATE: 20040219 APPLICATION: WD 2003EP8569 (20030731) "GB 200218037 (20020802) "GB
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 40/3, K/15
                    (Item 8 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                    CA: 140(13)198065a
                                                   PATENT
   Vaccine compositions comprising Neisserial adhesin, autotransporter
   toxin, iron acquisition protein and membrane-associated protein against
   Neisserial infection
   INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Coraj, Karine; Poolman, Jan; Weynants,
Vi ncent
   LCCATION: Belg.
  ASSIONEE: Glaxosmithkline Biologicals S.A.
PATENT: PCT international; WD 200414418 A2 DATE: 20040219
APPLICAT ON: WD 2003EP8571 (20030731) *GB 200218037 (20020802) *GB
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DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
   140180125
                    CA: 140(12)180125k
                                                  PATENT
   Vaccine composition comprising transferrin binding protein and Hsf
  against Neisseria meningitidis, Neisseria gonorrhoeae, Moraxella
catarrhalis and Haemophilus influenzae
INVENTOR AUTHOR: Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Goraj, Carine; Poolman, Jan; Weynants,
Vi ncent
   LOCATION: Bela.
   ASSIGNEE: Glaxosmithkline Biologicals S. A.
  PATENT: PCT International; WO 200414419 A1 DATE: 20040219
APPLICATION: WO 2003EP8567 (20030731) *GB 200218037 (20020802)
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200230170 (20021224) * GB 20035028 (20030305)
PAGES: 64 pp. CODEN: PLXXD2 LANGUAGE: En
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     CLASS: A61K-039/095A; A61K-039/102B; A61K-039/00B
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DIALOGYR) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society, All rts, reserv.
                                                     PATENT
   140180124
                     CA: 140(12)180124i
   Engineered meningococcal strains comprising LOS subunit or outer membrane
   vesicle with downregulated or deleted PorA, QpA and/or QpC for use as
   neisserial vaccines
   INVENTOR(AUTHOR): Biemans, Palph; Denoel, Philippe; Feron, Christiane;
         Karine; Poolman, Jan; Weynants, Vincent
   LCCATION: Belg
   ASSIGNEE: Glaxosmithkline Biologicals SA
  PATENT: PCT International; WO 200414417 A2 DATE: 20040219 APPLICATION: WO 2003EP8568 (20030731) *GB 200218037 (20020802)
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43/3, K/1 (Item 1 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society, All rts, reserv.
  151108227
                 CA: 151(5) 108227e
                                           PATENT
  Method for preparing protein conjugates
INVENTOP(AUTHOR): Biemans, Palph Leon; Duvivier, Pierre
  LCCATION: Belg.
  ASSIGNEE: Glaxosmithkline Biologicals S. A.
  PATENT: PCT International
                                  ; WO 200977438 A1 DATE: 20090625
  APPLI CATI CN: WO 2008EP67378 (20081212)
                                                  *GB 200724360 (20071214)
  PAGES: 87pp. CODEN: PI
PATENT CLASSI FI CATI ONS:
                  CODEN: PIXXD2 LANGUAGE: English
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                                       B 20060101
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 43/3, K/2
                (Item 2 from file: 399)
DIALOG(R) FILE 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                  CA: 149(7) 150894d
                                           PATENT
  Process for conjugation of bacterial poly- or oligosaccharides and
  proteins, polypeptide and polynucleotide sequences of proteins, and their
  use in vaccines
  INVENTOR(AUTHOR): Biemans, Ralph Leon: Duvivier, Pierre
  LCCATION: Belg.
  ASSIGNEE: Glaxosmithkline Biologicals S. A.
  PATENT: PCT International; WO 200881014 A2 DATE: 20080710
APPLICATION: WO 2008EP50011 (20080102) * QB 2007136 (20070104)
PAGES: 101pp. CODEN: PIXXD2 LANGUAGE: English
  PAGES: 101pp. CODEN: F
PATENT CLASSI FI CATI ONS:
     IPCR/8 + Level Value Position Status Version Action Source Office:
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Page 61

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43/3, K/3 (Item 3 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                 CA: 149(6)126535s
                                          PATENT
  Carbodiim de coupling in the preparation of saccharide conjugate vaccines
  INVENTOR(AUTHOR): Biemans, Ralph Leon; Duvivier, Pierre
  LCCATION: Bel q.
  ASSIGNEE: Bergy axosmithkline Biologicals S. A. PATENT: PCT international; VO 200881022 A1 DATE: 20080710 APPLICATION: VO 2008EF50021 (20080102) '08 2007135 (20070104) PACES: 65pp. CODEN: PIXXD2 LANGUAGE: English PATENT CLASSIFICATIONS:
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(c) 2010 American Chemical Society. All rts. reserv.
  146099125
                 CA: 146(6)99125n
                                          PATENT
  Combination vaccine comprising a Haemophilus influenzae type b saccharide
  coni ugate and addnl. bacterial saccharide conjugates
  INVENTOR(AUTHOR): Biemans, Ralph Leon; Boutriau, Dominique; Capiau,
Carine; Denoel, Philippe; Duvivier, Pierre; Poolman, Jan
  LCCATION: Beig.
  ASSIGNEE: Glaxosmithkline Biologicals S. A.
  PATENT: PCT International; WO 200700322 A1 DATE: 20070104
APPLICATION: WO 2006EP6210 (20060623) * GB 200513069 (20050627) * GB
200513071 (20050627) *GB 200515556 (20050728) *GB 200524204 (20051128) *GB 200526040 (20051221) *GB 200526041 (20051221)
  PAŒS: 52pp. CODEN: PI
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DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                CA: 146(6)99123k
                                       PATENT
  146099123
  Immunogenic composition containing Neisseria meningitidis capsular
  INVENTOR(AUTHOR): Biemans, Ralph Leon; Boutriau, Dominique; Capiau,
Carine; Denoel, Philippe; Duvivier, Pierre; Poolman, Jan
  LOCATION: Beig.
  ASSIGNEE: G axosmithkline Biologicals S. A.
PATENT: PCT international , WO 200700341 A2 DATE: 20070104
APPLICATION: WO 2006EF6268 (20060623) "GB 200513069 (20050627) "GB
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43/3, K/6 (Item 6 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                CA: 146(6) 99122j
                                        PATENT
  Neisseria meningitidis capsular polysaccharide vaccine conjugate
  INVENTOR(AUTHOR): Biemans, Ralph Leon; Boutriau, Dominique; Capiau,
Carine; Denoel, Philippe; Duvivier, Pierre; Poolman, Jan
LCCATION: Belg.
  ASSIGNEE: Glaxosmithkline Biologicals S. A.
PATENT CLASSI FI CATI ONS:
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       A61K-0039/095
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(c) 2010 American Chemical Society. All rts. reserv.
                                                                     PATENT
    146099120
                           CA: 146(6)99120a
    Immunogenic composition containing Neisseria meningitidis capsular
    polysaccharides
INVENTCR(AUTHCR): Biemans, Palph Leon; Boutriau, Dominique; Capiau,
Carine: Denoel Philippe: Duvivier Pierre: Poolman Jan
    LCCATI ON: Bei a.
    ASSIGNEE: Glaxosmithkline Biologicals S. A.
    PATENT: PCT International; WO 200700342 A2 DATE: 20070104
    APPLI CATI CN: WO 2006EP6269 (20060623) * CB 200513069 (20050627) * CB
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43/3, K/8 (Item 8 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                            CA: 146(6)99119p
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    146099119
    Preparation of saccharide-protein conjugates for vaccination
    INVENTOR(AUTHOR): Biemans, Ralph Leon; Duvivier, Pierre
    LCCATION: Belg.
    ASSIGNEE: Glaxosmithkline Biologicals S.A.
ASSISTANCE: G BX05II TIMITIE DI 01 091 0413 5 3.4

PATENT: PCT International; WO 200700343 A2 DATE: 20070104

APPLI CATION: WO 2006EP6270 (20060623) *GB 200513069 (20050627) *GB 200513071 (20050627) *GB 200515556 (20050728) *GB 200524204 (20051128) *GB 200526044 (20051221) *GB 200526044 (2005122
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 43/3, K/9
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DIALOG(R) FILE 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                                                   PATENT
                     CA: 146(6)99118n
  Combination vaccines comprising Haemophilus influenzae type b saccharide conjugate, an addnl. bacterial saccharide conjugate, and further antigens
   INVENTOR(AUTHOR): Biemans, Palph Leon; Boutriau, Dominique; Capiau,
Carine: Denoel, Philippe; Duvivier, Pierre; Poolman, Jan
   LCCATION: Bel a.
  ASSIGNEE: Glaxosmithkline Biologicals S.A.
PATENT: PCT International; WO 200700327 A1 DATE: 20070104
APPLICATION: WO 2006EP6220' (20060823) "GB 200513069 (20050627) *GB 200513071 (20050627) *GB 200513071 (20050627) *GB 200515056 (20050728) *GB 2005264204 (20051128) *GB 200526044 (200512121) *GB 200526040 (200512121)
   PAGES: 49pp. CODEN: PLXXD2 LANGUAGE: English
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DIALOG(R) FILE 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
   140259048
                      CA: 140(16) 259048w
                                                      PATENT
   Neisseria outer membrané FrpB proteins containing Loop-deletions for
improved refolding and vaccine use
INVENTCP(AUTHOR): Blemans, Palph, Denoel, Philippe; Feron, Christiane;
Coraj, Karine; Kortekaas, Jeroen; Pool man, Jan; Tommassen, Jan; Weynants,
Vi ncent
   LOCATION: Belg
ASSIGNEE: Glaxosmithkline Biologicals S. A.; Utrecht University; 
Technology Foundation (Sitchting Voor de Technische Wetenschappen) 
PATENT: PCT international; WD 200420463 AZ DATE: 20040311 
APPLICATION: WD 2003EP9544 (20030828) GB 200220199 (20020830) 
PAGES: 104 pp. _COUNTY PIXXOE LANGLIAGE: English
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(c) 2010 American Chemical Society. All rts. reserv.
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LCCATION: Bela.
      ASSIGNEE: Glaxosmithkline Biologicals S. A.; Utrecht University
PATENT: PCT International; WO 200420452 A2 DATE: 20040311
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   U; ZA; ZM; ZW; AM; AZ; BV; KG; KZ; MD; RU; DESIGNATED REGIONAL: GI-
LS; MW; MZ; SD; SL; SZ; TZ; UQ; ZM; ZW; AT; BE; BQ; CH; CY; CZ; D
E;ES; FT; FR; GB; GR; HU; IE; TT; LU; MC; ML; PT; RQ; SE; SI; SK;
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   43/3, K/12
                                        (Item 12 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                                       CA: 140(13)198071z
                                                                                                   PATENT
      Meningococcal genetically engineered vaccine composition which has a
      fixed or locked lipooligosaccharide (LOS) immunotype
     INVENTOR(AUTHOR): Biemans, Raiph; Denoel, Philippe; Feron, Christiane;
oraj, Karine; Jennings, Michael Paul; Poolman, Jan; Weynants, Vincent
      LOCATION: Belg.
LOCATION. Beig.

ASSIGNEE: Glaxosmithkline Biologicals Sa; The University of Queensland PATENT: PCT International; WD 200415099 A2 DATE: 20040219

APPLICATION: WD 2003EP8569 (20030731) GB 200218037 (20020802) *GB 200218036 (20020802) *GB 200218036 (20020802) *GB 200218036 (20020802) *GB 200218036 (20020802) *GB 2002218036 (20020802) *GB 200225531 (20021101) *GB 200225199 (20020803) *GB 200225531 (20021101) *GB 200230164 (20021224) *GB 200230166 (2002124) *GB 200230166 (2002124) *GB 200230166 (2002124) *GB 200230166
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PATENT CLASSI FI CATI ONS: CLASS: C12N-015/00A DESIGNATED COUNTRIES: AE; CA; CH; CN; CO; CR; CU; CZ; GM; HR; HU; ID; IL; IN; IS; AG AL; ΑŲ; AMt AT: AZ; BA: BB: BG BR: BY: ΒZ DE; EE, DK: DM DZ; EC; KR; ES; LC; FI: Œ: CD: Œ: GH: KE; MZ; KP; JP: KG. ΚZ LK; LR; LS; LT; LU; MG: MK: MN: MW MX: LV: MA: MD: NO: NZ: ĊΜ PG: PH: PL PT; RO, NI: RU: TZ: UA: SC: SD: SE: SG: SK: SL: SY: TJ: TM TN: TR: TT UG: US: VN: YU, ZX, ZM, ZW, AM, XZ; BY, XX, KZ; MD, RU, DESIGNATED REGIONAL. GH, GM, . LS, MW, MZ, SD, SL, SZ, TZ, UQ, ZM, ZW, AT, BE, BQ, CH, CY, CZ, DE, DK, EEE, ES, FI; FR, GB; GB, HU, TE, TT, LU, MX, NL; PT, HO, SE, SI, SK, TR, E DESIGNATED REGIONAL: CH;

200230170 (20021224) \* CB 20035028 (20030305) PACES: 42 pp. CODEN: PLXXD2 LANGUACE: English

PAŒS: 42 pp.

## BJ: CF: CG: CI: CM: GA: GN: GQ: GW ML: MR: NE: SN: TD: TG

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43/3, K/13
                                 (Item 13 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
    140198065
                               CA: 140(13) 198065a
                                                                                 PATENT
    Vaccine compositions comprising Neisserial adhesin, autotransporter.
    toxin, iron acquisition protein and membrane-associated protein against
    Neisserial infection
    INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Coraj, Karine; Poolman, Jan; Weynants,
Vi ncent
    LCCATION: Bel a.
    ASSIGNEE: Glaxosmithkline Biologicals S.A.
    PATENT: PCT International; WO 200414418 A2 DATE: 20040219
APPLI CATION: WO 2003EP8571 (20030731) *GB 200218037 (20020802) *GB
200218036 (20020802) *GB 200218036 (20020802) *GB 200218051 (20020802) *GB 200220197 (20020803) *GB 200220197 (20020803) *GB 200220197 (20020803) *GB 200220197 (20020803) *GB 200220518 (20021101) *GB 200220164 (20021224) *GB 200230164 (20021224) *GB 200230167 (20021224) *GB 200320167 (20021224) 
    PATENT CLASSIFICATIONS:
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K: TR; BF;
  43/3, K/14
                               (Item 14 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                                CA: 140(12) 180125k
                                                                                PATENT
    Vaccine composition comprising transferrin binding protein and Hsf
    against Neisseria meningitidis, Neisseria gonorrhoeae, Moraxella
    catarrhalis and Haemophilus influenzae
    INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Coraj, Carine; Poolman, Jan; Weynants,
Vi ncent
    LCCATION: Belg.
    ASSIGNEE: Gaxosmithkline Biologicals S. A.
PATENT: PCT international, WD 200414419 A1 DATE: 20040219
APPLICATION: WD 2003EP8567 (20030731) - GB 200218037 (20020802) - GB
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200225531 (20021101) * 3 200230164 (20021224) * 3 200230168 (20021224) * 3 200230170 (20021224) * 3 20035028 (20030305)
    PACES: 64 pp. CODEN: F
PATENT CLASSIFICATIONS:
                                   CODEN: PIXXD2 LANGUAGE: English
         CLASS: A61K-039/095A;
                                                          A61K-039/102B; A61K-039/00B
    DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ;
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YU; ZA; ZM; ZW; AM; AZ; BY; KQ; KZ; MĎ; FNU DESIGNATED REGIONAL: CH; GM; KE; LS; KW; MZ; SD; SL; SZ; TZ; UQ; ZM; ZW; AT; BE; BQ; CH; CY; CZ; DE; DK; EE; ES; FI; FR; CB; GP; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CQ; CQ; CM; ME; MR; NE; SN; TD; TG
   43/3 K/15
                                            (Item 15 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
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      140180124
                                            CA: 140(12)180124j
     Engineered meningococcal strains comprising LOS subunit or outer membrane vesicle with downregulated or deleted PorA, QpA and/or QpC for use as
      neisserial vaccines
INVENTOR AUTHOR): Biemans, Ralph; Denoel, Philippe; Feron, Christiane; Coraj, Karine; Poolman, Jan; Weynants, Vincent
      LOCATION: Belg.
      ASSIGNEE: Glaxosmithkline Biologicals SA
     PATENT: PCT International; WO 200414417 A2 DATE: 20040219
APPLICATION: WO 2003EP8568 (20030731) *GB 200218037 (20020802)
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200218036 (20020802) *GB 200218036 (20020802) *GB 200218031 (20020802) *GB 200218051 (20020802) *GB 200220197 (20020802) *GB 200220593 (20020802) *GB 200220597 (20020803) *GB 200220597 (20020803) *GB 200220597 (20020803) *GB 200220597 (20020803) *GB 200208067 (20021024) *GB 200230164 (20021224) *GB 200230168 (20021224) *GB 20020807 (20021224) *GB 200300805 (20021224) *GB 20020805 
      PATENT CLASSIFICATIONS:
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      DESI GNATED COUNTRIES: AE:
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YU; ZA; ZM, ZW, AM, AZ; BY, KG, KC; MC; RU DESIGNATED REGIONAL; CZ; DE; DK;
LS; MW, MZ; SD; SL; SZ; TZ; UG, ZM, ZW, AT; BE; BG, OH; CV, CZ; DE; DK;
EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF;
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47/3, K/1 (Item 1 from file: 399)
DIALOG(R) File 399: CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.
                    CA: 140(12)180125k
                                                    PATENT
   Vaccine composition comprising transferrin binding protein and Hsf
   against Neisseria meningitidis. Neisseria gonorrhoeae. Moraxella
   catarrhalis and Haemophilus influenzae
   INVENTOR(AUTHOR): Berthet, Francois-xavier Jacques; Biemans, Ralph;
Denoel, Philippe; Feron, Christiane; Coraj, Carine; Poolman, Jan; Weynants,
Vi ncent
   LOCATION: Bel a.
   ASSIGNEE: Glaxosmithkline Biologicals S. A.
  PATENT: PCT International; WO 200414419 A1 DATE: 20040219
APPLICATION: WO 2003EP8567 (20030731) *GB 200218037 (20020802) *GB
200218036 (20020802) *GB 200218035 (20020802) *GB 200218051 (20020802) *GB 200220197 (20020803) *GB 200220199 (20020803) *GB 200220199 (20020803) *GB 2002205524 (20021101) *GB 200230164 (20021224) *GB 200230168 (20021224) *GB 200330170 (20021224) *GB 20033055 (20030305)
  PACES: 64 pp. CODEN: F
PATENT CLASSIFICATIONS:
                       CODEN: PIXXD2 LANGUAGE: English
   CLASS: A61K-039/095A; A61K-039/102B; A61K-039/00B
DESI GNATED COUNTRI ES: AE; AG; AL; AM; AT; AU; AZ; BA
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KR; KZ;
CA; CH; CN; CO; CR; CU; CZ; DE;
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Số Số: SE: Số SK: SL: SV: TÚ: TM TN: TR; TT: TV: UÁ LÚA LÍS: LÚ: Vố (
YU: ZA: ZM ZM XM AZ: BY: KG: KZ: MO: RÚ DESIGNATED REGIONAL: GH-GM
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EE: ES: FI; FR: GB; GR; HU; IE; IT; LU; MC; NL: PT; RQ; SE; SI; SK; TR; E
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                   (Item 1 from file: 357)
DI ALOG(R) File 357: Der went Bi ot ech Res.
(c) 2010 Thomson Reuters. All rts. reserv.
0337155 DBR Accession No.: 2004-09447
                                                           PATENT
New immunogenic composition comprising transferrin binding
     protein and Hsf like protein, useful for treating or preventing disease caused by Neisseria meningitidis or N.
      gonorrheae, Moraxella catarrhalis or Hemophilus influenzae -
      immunogenic composition for use in bacterium infection therapy and
      vacci ne
AUTHOR: BERTHET F J; BIEMANS R; DENCEL P; FERON C; GORAJ C;
                                                                                          PCOLMAN J;
       WEYNANTS V
PATENT ASSIGNEE: GLAXOSM THKLI NE BLOLOGICALS SA 2004
PATENT NUMBER: WO 200414419 PATENT DATE: 20040219 WPI ACCESSION NO.:
      2004-169460 (200416)
PRI CRITY APPLI C. NO.: CB 20035028 APPLI C. DATE: 20030305
NATI CNAL APPLI C. NO.: WO 2003EP8567 APPLI C. DATE: 20030731
LANGUAGE: English
New immunogenic composition comprising transferrin binding
      protein and Hsf like protein, useful for treating or
      preventing disease caused by Neisseria meningitidis or N.
      gonorrheae, Moraxella catarrhalis or Hemophilus influenzae -
      immunogenic composition for use in bacterium...
ABSTRACT: DERWENT ABSTRACT: NOVELTY - A new immunogenic composition
       comprises an isolated transferrin binding protein
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(Top) or its antigenic fragment and an isolated Hsf like protein Page 69

or its antigenic from the same or different Gram negative bacteria. DETALLED DESCRIPTION...

- ...or preventing Neisserial infection; and (7) a pharmaceutical preparation comprising monoclonal antibodies against Topa and HSI of Neisseria meningitidis and an excipient. BIOTECATALCORY Preferred Composition: The immunogenic composition comprises high molecular weight form...
- ... TDpA and low molecular weight form TDpA. It comprises antigenic fragments of TDp and/or Hst like protein capable of generating a projective response against Neisseria meningitidis serogroup B. Neisseria genorrheae, by a seria genorrheae, by a seria
- ... been genetically engineered so as to introduce a stronger promoter sequence upstream of genes encoding transferrin binding protein and Heflike protein. A host cell from which the outer membrane vesicle preparation is derived has...
- ... polysaccharide or oligosaccharide. It comprises two or more bacterial capsular polysaccharides or oligosaccharides conjugated to transferrin binding profein or Hsf like profeins or both. The capsular polysaccharide or oligosaccharide is derived from Neisseria meningitidis serogroup B. Neisseria gonorrheae, Mbraxella catarrhalis or Haemphilus influenzae. The immunogenic composition also comprises one or more polynucleotides encoding a transferrin binding profein and a Hsf like profein whose expression is driven by a eukaryotic promoter. It further comprises an adjuvant containing CpG It also comprises aluminum salts or 3D-MPL. The TbpA and Hsf of Neisseria meningitidis are encoded. Preferred Method: Treating or preventing Gram negative bacterial disease comprises administering the
- ... Neisserial infection is prevented or treated. Making the immunogenic composition comprises: (1) mixing together isolated transferrin binding protein and isolated Hsf like protein; (2) isolating outer membrane vesicles from a Gram negative bacterial culture, which involves...
- ...preferably 0.1% detergent, preferably DCC; and (3) conjugating bacterial capsular polysaccharides or oligosaccharides to transferrin binding protein and/or Hsf like protein. Making the Page 70

vaccine comprises combining the immunogenic composition with an excipient. Preparing an...

... ACTION - Vaccine. USE - The immunogenic composition is useful for treating or preventing infection caused by Neisseria meningitidis serogroup B, Neisseria gonorrheae, Moraxella catarrhalis or Haemophilus influenzae (claimed). ADM NISTRATION - The composition is administered via oral or.

administered via oral or...
DESCRIPTORS: immunogenic composition, transferrin binding

omerions: immunogenic composition, transferrin binding protein isol., hsf-like protein, fusion protein, genetically engineered bacterium outer membrane vesicle, monoclonal antibody, appl. Neisseria meningitidis, Neisseria gonorrheae, Moraxella catarrhalis, Haemophilus influenzae infection theraov. recombinant vaccine protein bacterium (23, 19)

47/3, K/3 (Item 1 from file: 457)
DIALOX(R) File 457: The Lancet
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## 0000162978

\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\*
Serogroup B meninggococcal vaccines-an unfinished story
Sadar angani, Manish; Pollard, Andrew 1
The Lancet Infectious Diseases vol. 10, 2 PP. 112-24 Feb 2010
DCJLMENT TYPE: PERIODICAL; General Information; Journal Article
LANGLIAGE: English RECORD TYPE: New, Fulltext
LENGTH: 13 Pages

## ABSTRACT:

Most invasive meningococcal disease in developed countries is caused by Neisseria meninglitidis with a serogroup B capsule . However, despite availability of vaccines for other serogroups since...

Most invasive meningococcal disease in developed countries is caused by Neisseria meningitidis with a serogroup B capsule. However, despite availability of vaccines for other serogroups since...

## ...few years.

Introduction

The first description of a disease with the characteristics of infection with Neisseria meningitidis was made by Gaspard Vieusseux1 in Geneva, Switzerland, during a meningitis epidemic in 1805...vesicle vaccines. Outer membrane vesicles without PorA and with overexpression of the conserved proteins TbpA, Hsf, NspA, or Cmp85 only induced a serum bactericidal antibody response in mice when combined. 79...antibodies in human beings after promising mouse studies and is not being pursued. 47, 108 Transferrin-binding proteins elicited serum bactericidal antibody in mice and rabbits, 109, 110 and there have.

...to establish whether mucosal IgA has a role in protection against colonisation with virulent meningococci. Neisseria lactamica is a commensal carried in the nasopharynx of young children and has been implicated... SIDEBAR:

For more on PorA variants see http://www.neisseria.org Panel: Timeline showing the development of serogroup B meningococcal vaccines

B pol vsacchari de not...

...and the reports of health agencies of relevant countries. Search terms
Page 71

- were "menb", "vaccination", "immunisation", "neisseria", "meningitidis", "meningococcal", "serogroup b", "GNA 1870", "GNA1870", "LP2086", "factor H binding protein", "fHop", "GNA2132", "NadA... CAPTI ONS:
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- ... Sci USA 1998; 95: 3140-45.
- 6 Caugant DA. Population genetics and molecular epidemiology of Neisseria meningitidis. APM S 1998; 106: 505-25. 7 EU-IBIS Network, Invasive Neisseria meningitidis in Europe
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  - 8 Bilukha CO. Rosenstein N. Prevention...
- . Epidemiology of meningococcal disease in southern Brazil from 1995 to 2003, and molecular characterization of Neisseria meningitidis using multilocus sequence typing. Trop Med Int Health 2008; 13: 31-40.
  - 11 Rosenstein...
- ...al. Serum bactericidal activity correlates with the vaccine efficacy of outer membrane vesicle vaccines against Neisseria meningitidis ser ogroup B di sease. Vacci ne 2003; 21: 734-37.
- 18 Sierra GV, Campa HC, Varcacel NM, et al. Vaccine against group B Neisseria meningitidis: protection trial and mass vaccination results in Cuba. NI PH Ann 1991: 14: 195-207...
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. Getsios D, Caro I, El-Hadi W, Caro JJ. Assessing the economics of vaccination for Neisseria meningitidis in industrialized nations: a review and recommendations for further research. Int J Technol Assess... THIS IS THE FULL-TEXT ? S (((AUTOTRANSP? OR IRON) AND HSF) OR ((AUTOTRANSP? OR IRON) AND TRANSFERRINI) Processi na 30 of 52 files . Processed Completed processing all files 59156 AUTOTRANSP?

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DIALOG(R) File 5: Biosis B-31
                 5: Biosis Previews (R)
(c) 2010 The Thomson Corporation. All rts. reserv.
            BI OSI S NO.: 200600366715
19021320
Analysis of hemochromatosis gene mutations in the Sicilian population:
  Implications for survival and Longevity
AUTHOR: Balistreri C R; Candore G (Reprint); Almasio P; Di Marco V;
  Colonna-Romano G, Craxi A; Motta M, Piazza G, Malaguarnera M, Lio D;
  Caruso C
AUTHOR ADDRESS: Dept Biopathol and Biomed Methodol, Immunosenescence Study Unit, Corso Tukory 211, I-90134 Palermo, Italy**Italy
AUTHOR E-MAIL ADDRESS: gcandore@unipa.it
JOURNAL: Archives of Gerontology and Geriatrics (Suppl. 8): p35-42 2002
2002
I SSN: 0167-4943
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
... ABSTRACT: cleft. This protein, instead, has acquired the ability to form
  complex with the receptor for iron-binding transferrin, so by
regulating iron uptake. The C282Y mutation in the HFE gene, known
to increase iron uptake, has been identified as the main genetic
  basis of hereditary hemochromatosis (HH). Two more.
...in patients affected by chronic liver diseases (CLD, n = 92) or by high serum ferritin (HSF) values (n = 24) from Sicily. Samples were
  typed for C282Y, H63D and S65C alleles using...
...mutation. One was compound heterozygous C282Y/H63D; none was heterozygous for the S65C mutation. Among HSF patients, two were
  homozygous and two were heterozygous for the C282Y mutation, two were
  homozygous...
  . REGISTRY NUMBERS: iron
DESCRI PTORS:
  CHEMICALS & BICCHEMICALS: iron; ...
...transferrin receptor
51/3, K/2 (Item 2 from file: 5)
DIALOG(R) File 5: Biosis Previews (R)
(c) 2010 The Thomson Corporation, All rts, reserv.
16322819
           BI OSI S NO.: 200100494658
Genetic analysis of virulence factors of Mannheim a (Pasteurella)
  haemolytica A1
AUTHOR: Lo Reggie Y C (Reprint)
AUTHOR ADDRESS: Department of Microbiology, University of Quelph, Quelph,
  CN, N1G 2WI, Canada**Canada
JOURNAL: Veterinary Microbiology 83 (1): p23-35 22 October, 2001 2001
MEDIUM print
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I SSN: 0378-1135 DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English

- ... ABSTRACT: antigens of M haemolytica A1 have been identified. The first one is a TonB-dependent iron regulated outer-membrane receptor that is distinct from the transferrin binding proteins. The 84 kDa Irp protein exhibits features including a TonB box and a...
- ...protein as expected, demonstrating that they are functional genes. In addition to being regulated by iron and Fur, irpMn undergoes phase variation by a slipped-strand mispairing mechanism and may represent a contingency locus for iron acquisition during an infection. Another locus that codes for a putative adhesin molecule has also ...
- ... weight adhesin proteins of non-piliated non-typable strains of Haemophilus influenzae (NTHI) including HIa, Hsf, HMM, HMM2. Currently, we have cloned the DNA that codes for 2223 amino acids (225...
- ...complete, the protein could be close to 240 kDa, similar to the molecular mass of Hsf. Though incomplete, analysis of the adhesin showed that it exhibits characteristics of autotransporter (AT) proteins. The role of this high-molecular-weight adhesin in infection is being investigated.

#### DESCRIPTORS:

CHEM CALS & BI COHEM CALS: ... TonB-dependent iron regulated outer-membrane receptor..

...transferrin binding proteins

51/3, K/3 (Item 1 from file: 34)
DIALOG(R) File 34: Sci Search(R) Cited Ref Sci
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16535859 Genuine Article#: 172ER No. References: 15 Title: Ionization rate and absolute intensity of peptides enhanced with

ISSN: 0251-0790 Publication Date: 20070500
Publisher: HIGHER EDUCATION PRESS, SHATANHOU ST 55, BEIJING 100009, PEOPLES

R CHI NA

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Abstract: Human serum transferrin (HTF), bovine serum albumin (BSA), and horse spleen ferritin (HSF) have capacities of assisting the matrix to enhance ionization rate and absolute intensity both insulin

... and structures. The fragment numbers of HTF lysised with endopeptidease and matching rate with reference transferrin were greatly improved, in the presence of SZLF, - apoSZLF and HSF, when HTF was identified by a combined techniques, lysis enzyme I and peptide mass fingerprinting.

.... I dentifiers: FLIGHT MASS-SPECTROMETRY; MALDI-TOF-MS; I RON RELEASE; Page 77

## PROTEOMICS: FERRITIN: KINETICS

51/3, K/4 (Item 2 from file: 34) DIALOG(R)File 34: SciSearch(R) Oxted Ref Sci (c) 2010 The Thomson Corp. All rts. reserv.

04839326 Cenuine Article#: UL650 No. References: 403 Title: THE STRESS GENE RESPONSE IN BRAIN Author: MASSA SM SWANSON RA: SHARP FR

Author: MRSSA SM, SWANSON PA, SHARP FF,

COFPORTER SOUTCE: VET AFFA IRS MED CTR, DEPT NEUROL, 127, 4150 CLEMENT ST/SAN
FRANCISCO (CAV 94121; UNIV CALLE SAN FRANCISCO, DEPT NEUROL/SAN
FRANCISCO (CAV 9413)

Journal: CEREBROVASCULAR AND BRAIN METABOLISM REVIEWS, 1996, V8, N2 (SUM), P95-158

SSN: 1040-8827

Language: ENGLISH Document Type: REVIEW (Abstract Available)

... Research Fronts: BRAIN INJURY; RAT FOCAL ISCHEMIA; GLUTAMATE NEUROTOXICITYI

94-0806 001 (HEAT-SHOOK TRANSORIPTION FACTOR; CONSTITUTIVE HSF2 DINA-BINDING ACTIVITY IN MOUSE EMBRYONAL CARCINOMA-CELLS; CYTOSOLIC HSP70 CENE FAMILY) 94-1531 001...

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...I.NH BITS P34 (COC2) KI NASE: MOUSE COCYTES; UBIQUITIN MEDIATED PROTECLYTIC PATHWAY; COC2 ACTIVATION)
94-7136-001 (IRON-RESPONSIVE ELEMENT-BINDING PROTEIN; POSTTRANSCRIPTIONAL REGULATION; 3" UNTRANSLATED REGION; TRANSFERRIN RECEPTOR CENE: EXPRESSION.

51/3, K/5 (Item 1 from file: 357) DIALCO(R) File 357: Derwent Biotech Res. (c) 2010 Thomson Reuters. All rts. reserv.

0337155 DBR Accession No.: 2004-09447 PATENT
New immunogenic composition comprising transferrin binding protein
and Hsf like protein, useful for treating or preventing disease
caused by Neisseria meningitidis or N. gonorrheae, Moraxella
catarrhalis or Hemophilus influenzae - immunogenic composition for use

in bacterium infection therapy and vaccine
AUTHOR BERTHET F J; BIEMANS R; DENCEL P; FERON C; GORAJ C; PCOLMAN J;
WEYNAMTS V

PATENT ASSI GNEE: GLAXOSM THKLI NE BI OLOGI CALS SA 2004
PATENT NUMBER: WO 200414419 PATENT DATE: 20040219 WPI ACCESSI ON NO.:

2004-169460 (200416)
PRI CPI TY APPLIC. NO.: 08 20035028 APPLIC. DATE: 20030305
NATI CNAL APPLIC. NO.: WO 2003EP8567 APPLIC. DATE: 20030731
LANGLAGE: English

New immunogenic composition comprising transferrin binding protein and Hsf like protein, useful for treating or preventing disease caused by Neisseria meningitidis or N. gonorrheae... ABSTRACT: DEFMENT ABSTRACT: NOVELTY - A new immunogenic composition

ABSTRACT: DERWENT ABSTRACT: NOVELTY - Å new immunogenic composition comprises an isolated transferrin binding protein (Tbp) or its antigenic fragment and an isolated Hsf like protein or its antigenic from the same or different Gram negative bacteria. DETAILED DESSEIPTION...

...or preventing Neisserial infection; and (7) a pharmaceutical preparation comprising monoclonal antibodies against TbpA and Hsf of Neisseria meningitidis and an excipient. BIOTECHNOLCGY - Preferred Page 78

Composition: The immunogenic composition comprises high molecular...

... TbpA and low molecular weight form TbpA. It comprises antigenic tagments of Tbp and/or Hst like protein capable of generating a protective response against Neisseria meningitidis serogroup B. Neisseria gnonrheae, Moravella catarrhalis or Haemphilius influenzae infection. It comprises antigenic fragments of TbpA and/or Hsf. It comprises a fusion protein of Tbp and Hsf like protein or TbpA and Hsf capable of generating a protective response against Neisserial infection. The Hsf like protein or transferrin binding protein is derived from Neisseria meningitidis serogroup B. Neisseria gonorrheae. Moravella catarrhalis or Heemphilius influenzae. The transferrin binding protein is TbpA. The immunogenic composition comprises an outer membrane vesicle preparation derived from Gram negative bacteria, in which expression of both transferrin binding protein and Hsf like protein are at least 1.5 fold higher than naturally occurring in the unmodified Gram negative bacteria. The expression of transferrin binding protein is upregulated by growth under iron limitation conditions. At least a part of the outer membrane vesicle preparation is derived from Neisseria meningitidis serogroup B. Neisseria gonorrheae, Moravella catarrhalis or Heemophilius influenzae. The transferrin binding protein are upregulated on different vesicles originating from different bacterial strains or on the...

- ... been genetically engineered so as to introduce a stronger promoter sequence upstream of genes encoding transferrin binding protein and Hsf like protein. A host cell from which the outer membrane vesicle preparation is derived has...
- ... polysaccharide or oligosaccharide. It comprises two or more bacterial capsular polysaccharides or oligosaccharides conjugated to transferrin binding protein or Hsf like proteins or both. The capsular polysaccharide or oligosaccharide is derived from Neisseria meningitidis sergoroup...
- ... catarrhalis or Haemophilus Influenzae. The immunogenic composition also comprises one or more polynucle sotides encoding a transferrin binding protein and a Hsf like protein whose expression is driven by a eukaryotic promoter. It further comprises an adjuvant containing OpCs. It also comprises aluminium salts or 3D-MPL. The TopA and Hsf of Neisseria meningitidis are encoded. Preferred Method: Treating or preventing Gram negative bacterial disease comprises...
- ... Neisserial infection is prevented or treated. Making the immunogenic composition comprises: (1) mixing together isolated transferrin binding protein and isolated Hsf like protein; (2) isolating outer membrane vesicles from a Gram negative bacterial culture, which involves...
- ...preferably 0.1% detergent, preferably DCC; and (3) conjugating bacterial capsular polysaccharides or oligosaccharides to transferin binding protein and/or Hsf like protein. Making the vaccine comprises combining the immunogenic composition with an excipient. Preparing an...
- DESCRIPTORS: 'immunogenic composition, transferrin binding protein isol., Hsf-like protein, fusion protein, genetically engineered bacterium outer membrane vesicle, monoclonal antibody, appl. Neisseria meningitidis...

51/3,K/6 (Item 1 from file: 457)
DIALCQ R) File 457: The Lancet
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Page 79

#### 0000162978

\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\* Serogroup B meningococcal vaccines an unfinished story
Sadarangani, Manish; Pollard, Andrew J
The Lancet infectious Diseases vol. 10, 2 PP. 112-24 Feb 2010
DCJLMENT TYPE: PERICOLCAL; General Information; Journal Article
L WORD COUNT: 10053

## TEXT.

... vesicle vaccines. Outer membrane vesicles without PorA and with overexpression of the conserved proteins TbpA, Hsf, NspA, or Cmp85 only induced a serum bactericidal antibody response in mice when combined 79...antibodies in human beings after promising mouse studies and is not being pursued 47,108 Transferrin-binding proteins elicited serum bactericidal antibody in mice and rabbits, 109, 110 and there have...

...addition to those involving fHbp (table 2).77,79-81,102,109,110,112-124 Iron-regulated proteins (eg. FetA, LbpA, and LbpB) are upregulated in conditions where the concentration of iron is low, so the amount present in outer membrane vesicle vaccines is dependent on growth... SI DEBAR: CITED REFERENCES:

# . 27-31.

109 Rokbi B, Mignon M, Maitre-Wilmotte G, et al. Evaluation of recombinant transferrin-binding protein B variants from Neisseria meningitidis for their ability to induce cross-reactive and...

...strains. Infect Immun 1997; 65: 55-63. 110 Ala' Aldeen DA, Borriello SP. The meningococcal transferrin -binding proteins 1 and 2 are both surface exposed and generate bactericidal antibodies capable of...

...Lissolo L, Quinet F, et al. Safety and immunogenicity of a Neisseria meningitidis group B transferrin binding protein vaccine in adults. 11th International Pathogenic Neisseria Conference; Nice, France; Nov 1-6

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S43	15	RD (unique items)
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